THE FINANCIAL Analysts Journal

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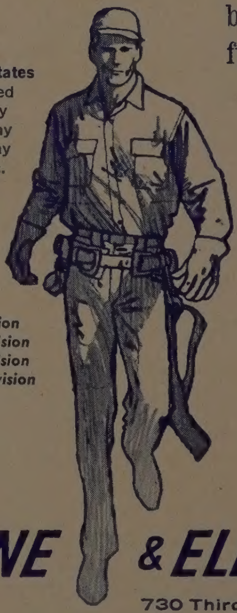

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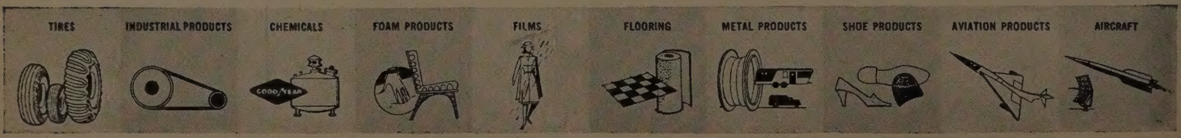

THE FINANCIAL
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'Thus an Author Is Born'

Occasionally we're asked how we contacted a particular author and how did we know he was well versed in a certain subject. Well, frankly, there are as many ways of finding authors as there are (with a deep bow to our grandfather) ways of skinning a cat. Perhaps the most interesting discovery—to date—concerns an article about Latin American investments in our next issue.

Albert W. Bates, New York public relations executive and a good friend of ours, recently sent us a postcard from Buenos Aires. It read:

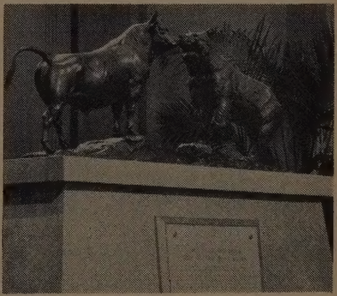
"Here on a survey of tourist potentials. Saw Fulton Boyd, ex-Wall Streeter, still a member of *N.Y.S.S.A.*, who handles Sir Victor Sassoon's Argentine interests. Fulton has South American financial situation so well cased that he saved me many days of interview time."

Well, we hurried to the National Federation's Society Directory and looked for one Fulton Boyd. We found his name and address: Avenida, R.S. Pena 1110, Buenos Aires, Argentina.

An airmail letter was quickly dispatched. Mr. Boyd agreed to write an article on "The Investment Climate in Latin America," which will appear in our September-October issue. And so a star (i.e., author) is born.

The Convention's Welcome—by Coincidence

Financial Analysts who attended the National Federation's Thirteenth Annual Convention at New York City's Waldorf-Astoria Hotel were appropriately greeted (or so it seemed at first) by the famed symbols of their profession: a statuesque Bull and equally large Bear (see insert). Mounted on a marble podium, the Bull and Bear dominated the Waldorf's lobby.



But ah, upon reading the plaque which described the why-and-the-wherefor, a stock market gloom set in. For the legendary financial symbols had *not* been set-up in our honor, but rather as a publicity stunt for a new hotel restaurant.

Still, it was a happy coincidence, and Analysts read (the plaque's implication) that modern Wall Streeters will be welcome—as were their ancestors at a similar restaurant in the old Waldorf—to come uptown, sip their toddies, and (also by implication) make and lose fortunes.

Summing up: after adjusting ourselves to the "technical correction," we reassumed our first impression of a friendly welcome.

Growth Situations—See You in St. Louis

Paraphrasing the old saw that "a chain is no stronger than its weakest link," an Analysts Society is as strong as its members wish to make it. And from all indications, wishing is making it so.

Specifically, we have in mind Annual Conventions at which an Analyst Society is host. With the New York convention just completed (the convention which Chairman George Nelson termed "The Lucky Thirteenth"), we were particularly impressed by the study and long hours of preparation that must, per force, precede such an event.

And we've also been particularly impressed by the time and effort which is going into regional meetings of Financial Analysts Societies. Currently, the St. Louis Society (which did such an excellent publicity job at the 1960 Annual Convention) is preparing a most impressive fall program, October 16-18, a program which well warrants the barker's cry: "come one, come all!"

See you in St. Louis.

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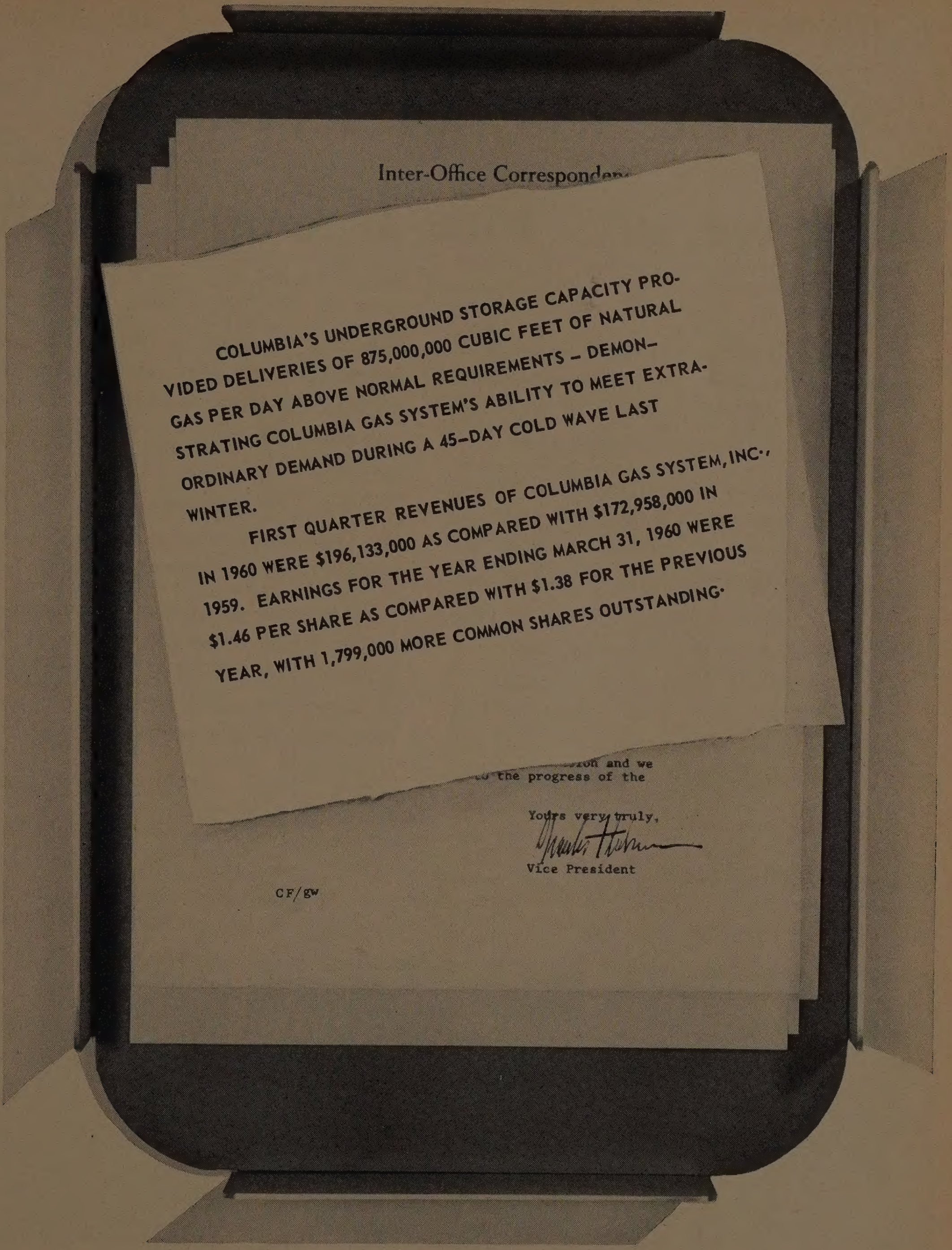

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Growth of Commerce on the Columbia River

by Ivan Bloch

OF ALL THE TRULY MAJOR RIVER SYSTEMS of the World, few surpass the Columbia River of the Great Oregon Country as to the diversity of its uses, its impact on economic development, and its existing and potential importance in the maturing of a vast area. From its sources in the glaciers and snow fields of the Canadian Rockies, the scenic grandeur of the river's 1,200 miles downward course to the Pacific Ocean is as varied as its enormous power development, the multimillion acre irrigation made possible by its waters, and the fabulous waterway it provides for ever-increasing commerce.

The historic pounding of torrential Columbia river and tributary waters (10 times in volume that of the Colorado and twice of the Nile) now has been largely subdued by a series of large multiple-purpose dams. At these massive concrete structures, 10.3 million kilowatts of generating capacity feed into a vast regional power network. From impounded waters in the reservoirs at some of these dams, more than four million acres of land, hitherto barren and wind-swept, produce a magnificent quantity and variety of crops. And a series of continuous waterways extends 465 miles inland, from the Pacific Coast to the rolling sweep of the Inland Empire of Washington, Oregon, and Southern Idaho (*Figure* 1).

During the past century, the entire Pacific Northwest—comprising not only the area drained by the Columbia and its tributaries, but areas adjacent to the Oregon and Washington coast—has grown rapidly. Today, the population of the region is close to 6,000,000 people, expanding at a rate exceeding that of the nation as a whole. (*Figure* 2 "Area Influenced Directly by Columbia Waterways"). Much of this growth has been closely related to the multiple-purpose development of the river system for power, irrigation, navigation, fisheries, domestic, commercial and industrial water supply, and recreation.

Economic activity has been traditionally oriented to the rendition of the area's natural resources and continues to do so with market emphasis on increasing manufacturing to high unit-value products. The vast forest mantle contains 35% of the nation's saw-timber resources, produces around one-third of its total lumber; about 90% of its softwood plywood; and a major proportion of its pulp and paper. The fertile soils of the area produce around one-sixth of U. S. soft wheat; one-third of its apples; and one-fifth of its sugar beets. However, it was the large-scale development of water power, which gained impetus in the early 1930s with the construction of major Federal dams, which brought in new types of industrial and economic production units.

Pacific Northwest aluminum, ferroalloys, phosphorus and an imposing number of other electrometallurgical and electrochemical products owe their existence predominantly to the great quantities of very low-cost Columbia river hydroelectric power transmitted to all points of the Pacific Northwest by means of a high capacity transmission network. The very recent construction of natural gas transmission pipeline systems, from rich Canadian fields and those of the San Juan and other basins in the Southwest, has begun to have a marked influence in the industrial and commercial structure of the region. The recent establishment of major petroleum refineries in the Puget Sound area, run on imported oil from Canada and overseas, has triggered an important and rapidly growing complex of chemical industries based on petroleum products and by-products.

OREGON'S GOVERNOR PREDICTS RIVER'S GROWTH

In an exclusive statement to The Financial Analysts Journal, Oregon's Governor Mark O. Hatfield said:

"Expanding national economy will result in such growing industrialization that the Columbia River may well be termed 'the Ohio of the West.' I believe this is inevitable.

"Much of this development will come on the middle and upper regions of the river where the abundant resources of water power, water transportation, and low-cost land, are combined to create industrial sites that are unequalled anywhere.

"By 1965, navigation on the Columbia will be pushed much farther inland with the completion of hydroelectric projects now under construction. The middle and upper Columbia will be one continuous series of pools, linked by navigation locks to form a great waterway over which raw materials and finished goods can move to all parts of the world.

"Substantial development already has taken place along the Columbia, but compared to that which is coming, we have only begun to develop the potential of this great river."

Potential Production Great

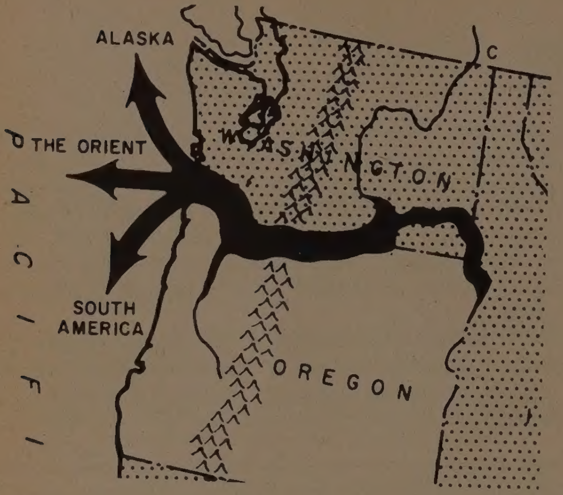
Although always basic to the economic vitality of the region, the navigational potential of the improved channels of the Columbia, the Willamette and the Snake

---

Ivan Bloch heads a private industrial and economic consulting practice under the name of Ivan Bloch & Associates in Portland, Oregon. For the past 20 years he has done economic-industrial analysis work in the Pacific Northwest and Alaska. He has conducted similar work in the Philippines, Jamaica and Chile. Born in Switzerland, Mr. Bloch received his engineering training in the U. S.

FIGURE 1

Strategic Location of Columbia River Waterway



rivers now looms as of primary importance to further expansion. Breaching the basalt bastions of the Cascade Range, before flowing into the Pacific Ocean, the river system serves as a rich cornucopia for a hinterland unexcelled for its existing and potential production. Agricultural and forest products largely make up an increasing tonnage of downstream and outbound commerce, with industrial raw materials and products moving inbound and upstream on the immense waterway.

The pattern of interaction of waterborne transportation, the productive facilities of the region and its consuming habits is becoming more and more accentuated. Downstream barge movements of wheat and other agricultural and forest products provide cargo space for upstream petroleum tonnages, mineral ores, and other products required by the expanding industrial complex of the entire hinterland. These shallow-draft vessel systems tie, by transshipment, into deep-draft ocean-going vessel operations.

The importance of the development of the Columbia river as a major transportation artery in the Pacific Northwest is not merely limited to its physical aspects. It has had, and will have—to an increasing degree—a compelling influence on all types of transportation, the freight rate structure of the area (both inter and intra-regional), and by consequence, on the entire economic destiny of the region and the West Coast.

The pattern of regional freight rates is exemplified in *Figure* 3, "Portland's Traffic Parity Situation." It reflects the availability of "gravity-flow" water transportation for the past years, at least up to and from the confluence of the Columbia and Snake rivers. With extension of all-year dependable navigation further up the Columbia (for instance, to the Wenatchee, Washington area and Rock Island dam), and up the Snake to Lewiston, it is not beyond possibilities that the pattern will be further accentuated by such navigational availability. The inter-related physical and freight rate tendency therefore, is to "drain" more and more of the Pacific Northwest economic activity through the Columbia, Snake and Willamette rivers to the Pacific Ocean.

Of far-reaching magnitude regarding expectable volumes of water-borne commerce on the Columbia river system is the continuing restriction of the market area to the east of the Pacific Northwest region resulting of increasing transcontinental rail rates. Because of the Pacific Northwest's distance from major national consuming markets in the mid-West, the East and the South, the price of reaching them is a vital factor in competitive survival. During the past two decades, with rail rates doubling, many Northwest products have lost traditional eastward markets, as for wheat and certain other agricultural and forest products. In some instances there is clear-cut correlation between rising rail rates and diminishing shipments eastward. Therefore, if for no other reason, the Pacific Northwest's economy has been shifting its focus westward to Pacific Basin points, and south to California markets by water-borne transport. Obviously, in this, the Columbia river waterways system is of primary importance.

History of Waterway Development

Prior to the construction of Bonneville dam in the early 1930s, with its already inadequate navigation lock, the traffic on the Columbia river water system was largely limited to the Lower Columbia river area. This portion, below the confluence of the Willamette and Columbia rivers at Portland, Ore., and Vancouver, Wash., had a natural channel reasonably adequate for the normal commerce of those earlier years. Even so, with increasing calls by deep-draft steamships into the Lower River area for logs and unfinished lumber, it became evident that the mouth of the river with a formidable bar, and the channel upriver to the Portland-Vancouver area, required substantial improvement for

FIGURE 2

Northwest Markets

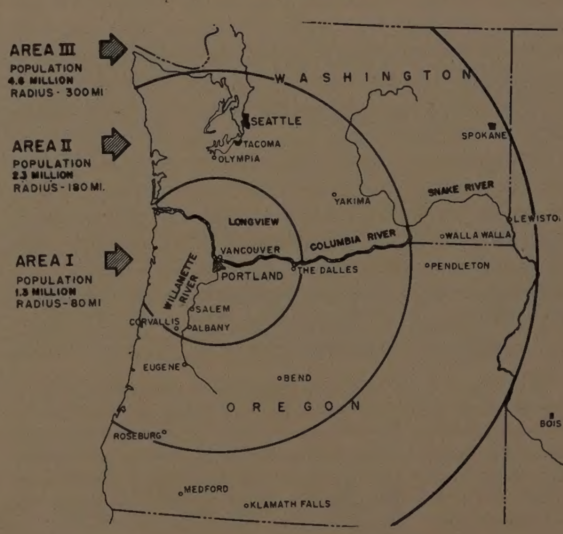
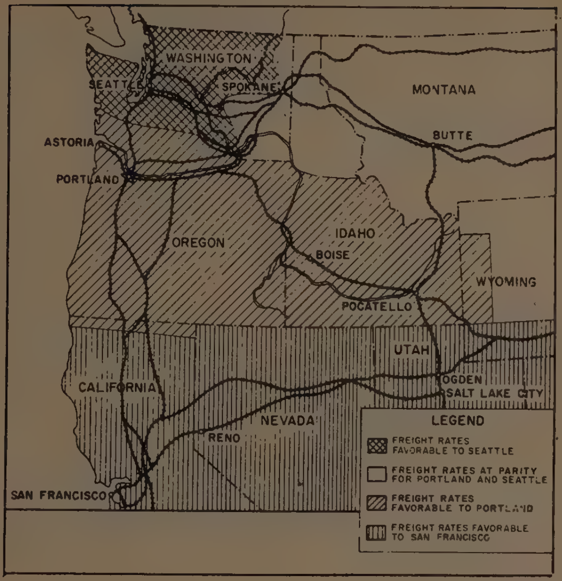


FIGURE 3

Portland's Traffic Parity Situation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Prepared by Portland Freight Traffic Association

safe and efficient navigation. In 1905, the U. S. Army Engineers were authorized to provide and maintain an entrance channel 40 ft. deep and a half-mile wide at the mouth of the river. A reasonably adequate channel subsequently was also maintained to the Portland-Vancouver area. However, up-river navigation was severely limited by rapids and falls at the Cascades (just above the present site of Bonneville dam) and at the famed Celilo Falls (now submerged by the pool of the Dalles dam). These obstacles hampered commerce considerably, even though as early as 1878 locks were constructed at Cascade Locks and in 1915 by the digging of the Celilo Canal. The first continuous steamship trip from Portland to Lewiston, Idaho, passed through these improvements in April of 1915.

In 1933, the construction of Bonneville dam was started. It contained a navigation lock 500 by 76 ft. which, at the time, seemed sufficiently large to take care of river commerce. It took a great deal of persuasive argument by local prohpets and supporters (such as the now-revered W. S. Nelson of The Dalles) to make certain that even this lock was included in the dam. With Bonneville dam, a reasonably slack waterway was created, extending limited deep-draft navigation to The Dalles, a total distance inland of 188 miles from the Pacific Ocean. The effect of this improvement was well-nigh instantaneous: the volume and diversity of tonnages, up and downstream, bounded upward sharply, and continued to do so year after year. This, in spite of the fact, that the waterway above The Dalles (through a narrow and somewhat tortuous Celilo Canal) restricted water-borne commerce to shallow-draft and narrow barges.

However, the die was cast. Multiple-purpose dams were constructed such as The Dalles and McNary, and still others with important navigation features are under construction at John Day (between The Dalles and McNary), Ice Harbor on the Snake above its confluence with the Columbia. Three other dams on the Snake have been authorized. (The foregoing recitation has dealt only with dams providing direct navigational features. Others on the Columbia such as Grand Coulee, Chief Joseph, Rocky Reach, Rock Island, Priest Rapids, and still a few yet to be built, are not now provided with locks or other direct aids to navigation).

Today, safe and efficient navigation is firmly established on the Columbia river system. The channel at the mouth has been deepened to 48 ft. and materially widened. A 35 ft. channel is maintained for 101 miles from the mouth to the mouth of the Willamette, with 30 ft. to Vancouver, Washington, and 35 ft. to the Portland Harbor. From Vancouver, Washington to The Dalles, a 27 ft. channel has just been completed. (On May 20, 1960, the U.S.S. Edmonds, a 306 foot Navy destroyer-escort steamed easily to The Dalles to celebrate completion of the work. This is the second deep-draft, ocean-going vessel to have made the voyage.) Modern barge navigation schedules will be materially improved with the completion of John Day dam in 1966, and the subsequent completion and construction of four now-authorized dams on the Lower Snake river. Controlling depths of nine feet will be guaranteed. However, with the rapid growth of commerce and the urgent need for even greater depths and widths of channels, plans are under active consideration for increasing channel depths below Bonneville dam to 40 ft., and if history is any precedent, pressures will mount for substantial additional improvements of locks at Bonneville (now grossly insufficient to handle volume effectively), at The Dalles and other up-stream structures. Further improvements of the Willamette river as far as Salem, Oregon (about 55 river miles from Portland) are also being actively considered.

Table I "Foreign and Coastwise Ocean-Borne Commerce" indicates something of the present pattern of such commerce on the Pacific Coast.

It will be noted, from this table, that the Columbia river accounts for a substantial portion of total West Coast ocean-borne commerce, approximately 12½%. This percentage has been steadily increasing over the years. (In 1953, the Columbia river contribution was 9.8% of total Pacific coast tonnage, rising each year thereafter). In 1958, in terms of foreign outbound ocean-commerce, the Columbia River substantially topped all other coastal ports. This latter record is attributable to the very large export of wheat and grain.

In 1956, Portland's port facilities accounted for 92% of total Columbia River outbound ocean-borne commerce, and 50% of total inbound commerce. Exports to Japan, India, Korea, Nationalist China and the Philippines were overwhelmingly a major part of total outbound commerce, with Peru and Japan taking credit for a major share of inbound commerce. Of arriving vessels (outside of those under the U. S. flag), the greatest number were of Japanese and Norwegian flag. Reflecting trends in the world for larger vessels, those entering the Columbia river, into its deep-draft mouth and channel, show a sharply rising number having drafts of 30 ft. and over. In 1940, there were but seven of this draft category; in 1950, the number rose to 398; and in 1955, to 468.

There is a predominance of petroleum products, with these representing 93% of total inbound tonnages. Cement and industrial metallic ores categories are also substantial. In this, cement movements reflect largely the impact of large public works programs (as of dams). Industrial ore tonnages are commensurate with the operations of large electrometallurgical operations based on low-cost Columbia river power.

By the same token, the region's eminent position in natural resources production is particularly noted in outbound movements of wheat, flour and other grains (for 50% of total outbound tonnages), and forest products (for 17% of total outbound tonnages). The large shipments of coal, for 1956, represented movements for the U. S. Department of Defense, especially to Korea. As of the present time, these tonnages have dwindled to a very small volume. The coal originated from the Rocky Mountain area as coal mining in the Northwest proper is a minor industry at the present time.

TRENDS AND FUTURE ASPECTS

A number of studies have been made of future aspects of ocean-marine commerce (as well as of shallow-draft navigation) on the Columbia river and its major tributaries. Although there are differences of estimates regarding levels of expectable tonnages and of cargo characteristics, there is unusual unanimity in the forecasting of continuing major increase in both inbound and outbound foreign movements. With regard to inbound and domestic cargoes, the question is not so much as to potential increasing volume as to the manner in which these cargoes will be transported by water, viz., by self-propelled vessel or tug-barge operations.

(These studies include those of the U. S. Army Engineers "Water Resources Development of the Columbia Basin," 1958; Ivan Bloch and Associates "Safe Navigation of the Columbia River," 1952; "Navigation Potential of the Columbia River Seaway," 1956; "Ocean Commerce Potential of the Lower Columbia River," 1958; "Potential Water-borne Commerce Between the Pacific Northwest and the Far East," 1958; Tippetts-Abbett-McCarthy-Stratton "Report on Portland Harbor Development Survey," 1959).

Some gross estimates of trends of Columbia waterway ocean-borne commerce can be obtained by reviewing tonnage movements through the Port of Portland during the past 10 to 15 years. The volume of certain cargoes are expected to be substantially greater than others. For example, petroleum products with almost 13,000,000 tons forecast for 1990, represent a doubling of 1956 actual movements, and this in spite of probable new inland petroleum-product pipe-line capacity to serve the region's increasing population requirements. Even this amount is likely to understate the situation for possible petroleum movements which may exist in 1990. This deduction arises of the fact that, by 1990, the electric power requirements of the Pacific Northwest will have to be met half by its hydroelectric resources (by then fully developed) and half by thermal generation. It is certain that by that time a portion of this thermal generation will be through nuclear power plants. A relatively small proportion of total will be produced by coal-fired large thermal plants of which the number and capacity will be restricted by inherent limitations in minable coal reserves of the region.

Therefore, assuming that petroleum movements can be assured from overseas areas such as Borneo, the Near East, the Caribbean and from new fields now

Table I

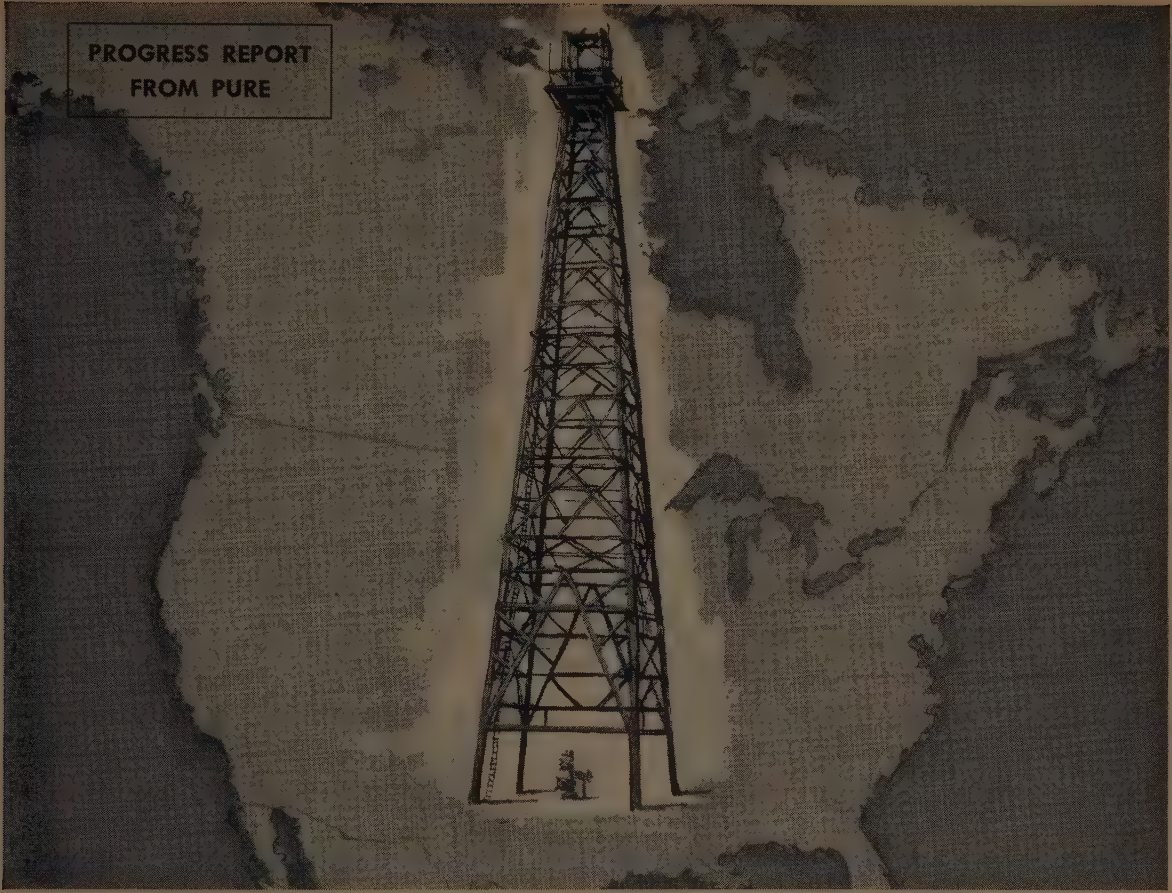
Foreign and Coastwise Ocean-Borne Commerce
Columbia River Compared to Other West Coast Areas

1958
(Short Tons)

	Outbound		Inbound		Total Ocean-Borne Commerce
	Foreign	Coastwise	Foreign	Coastwise	
Columbia River	3,772,255	1,070,850	523,331	5,056,067	10,422,503
(Portland	2,211,309	505,661	364,046	4,802,960	7,883,976)
Oregon Coast	305,332	1,580,929	33	513,833	2,400,127
Puget Sound	1,837,899	2,592,950	3,381,031	5,669,389	13,481,269
(Four Major Ports[1]	1,742,066	2,112,776	2,923,643	5,361,690	12,140,175)
Washington Coast	45,638	435,588	810	216,306	698,342
San Francisco Bay Area	2,322,908	9,636,206	4,763,696	9,907,835	26,630,645
Los Angeles	2,660,421	6,477,611	2,788,917	4,631,922	16,558,871
Long Beach	1,578,528	2,872,499	1,597,854	756,122	6,805,003
Other California	1,672,250	971,648	482,265	2,200,558	5,326,721
Total	14,195,231	25,638,281	13,537,937	28,952,032	82,323,481

[1] Seattle, Tacoma, Anacortes, and Bellingham.

Source: Adapted from U. S. Army Engineers "Waterborn Commerce of the United States" 1958.



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PURE receives Woodley oil reserves of over 70 million barrels of crude, of which 64 per cent is in the United States and 36 per cent in Canada. These supplement PURE's own estimated reserves of 511 million barrels of crude, condensate and natural gas liquids in the U. S. and 20 million barrels in Venezuela.

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being developed in tidewater Alaska, a substantial amount of oil will move into the Columbia river to supply new large oil-fired electric generating plants.

Alumina Output to Climb

Other inbound potentials which loom large in proportion to total are those of basic raw materials required by the electrochemical and electrometallurgical industries, which are steadily growing along the banks of the Columbia. These industries include aluminum reduction, for which alumina today is shipped by rail from Gulf Coast and southern producing units, and carbon, also by rail from California sources. It is the author's contention that, rising intercontinental rail freight rates, the increased total North Pacific demands for alumina and the general logistics of the aluminum industry will soon justify the Pacific Northwest establishment of major alumina production from overseas bauxites from Far East, Australian and Central American points, admixed to some degree with local Oregon ferruginous bauxites.

Other expanding industries for the production of chlorine and caustic soda, ferro-alloys, titanium and other "new" metals—and possibly new large-scale ferrous metals—will rely heavily on water-borne shipments of salt, ferro-alloy ores, various metallic ores, sulfur, iron and steel scrap, carbon and so on. Already in 1956 some of these inbound movements were reaching sizeable proportions. In this, the conclusion is inescapable as to the close relationship between the utilization of cheap water power and the navigational improvements which both are made possible by multiple-purpose development of the river basin. The great drive for further processing of the region's resources for pulp and paper, plywood, synthetic board, agricultural products, etc., also places emphasis on the waterborne in-shipment of such materials as salt, sulfur and petroleum products. Regarding the latter, it is the author's contention that petroleum refining capacity is very likely to be established on the Lower Columbia River. This will be required to meet more economically and efficiently "population-oriented" markets for fuel, for power production, and the by-production of essential chemicals for the local manufacture of plastics, adhesives, fertilizers and the like, which rising and specialized consumption in the Columbia basin make increasingly possible and necessary.

With regard to forecasts for out-bound ocean-going cargoes, predominance of wheat, grain and their products is striking, representing about three-fourths of total cargo movements estimated. Yet, when compared with actual tonnages for 1956, not much total increase is expected, but there may be a shift in the kinds of grain to be exported. The forecast perhaps understates the situation in that the immediate future is one for intensified export of Pacific Northwest wheat. ("Food for Peace" agreements reached in early 1960 between India and the U. S. entail the shipment of 16 million tons of American wheat over a period of 4 years. The portion of soft wheat in these shipments is almost equivalent to the total production of the Pacific Northwest).

Wheat Movements on the Rise

The large movements of wheat from the Pacific Northwest already exist to India, Pakistan, Japan, the Philippines and other nations of the Pacific Basin. These movements are the result of several factors. First, western soft wheat grown in the region, in fabulous yields per acre, is especially acceptable by the Far Eastern populace. Second, the wheat growers of the region, banded cooperatively in a marketing organization known as Western Wheat Associates, have done an excellent job of selling the Far East in accepting wheat as a staple food item, and in stimulating research and production of such as "bulgar" (produced and sold by Fisher Flouring Mills Co. of Seattle, Wash., under the trade name of "Ala" a delectable product). Thirdly, under Public Law 480, such wheat is used in barter arrangements between the United States and various nations, and through local currency purchases. It is possible that increasing acceptance of wheat and its substitutability for rice by Far Eastern nations may boost tonnages beyond those at present forecast.

Increasing industrialization and greater processing of the Columbia basin's natural resources also are reflected in forecasts of increased ocean commerce. Forest products, aluminum metal, phosphate fertilizer and related chemicals, as well as miscellaneous industrial and manufactured products, are expected to increase materially in their contribution to outbound tonnages. For instance, steady increases in world demands for phosphate fertilizer, and a wide variety of phosphorus chemicals, will undoubtedly intensify the utilization of the vast Pacific Northwest phosphate rock reserves (some 60% of national total) and the shipment of high quality and high value derived products. In total volume, the forecasts show that total commerce will more than double, and that inbound ocean commerce tonnages will probably increase 2½-fold and possibly treble during the next 30 years. It must be indicated also that 1990 forecasts reflect the anticipated and continuing improvement of the deep-draft Columbia River waterway, and its utilization up to The Dalles, through improved Bonneville locks.

It is safe to predict that the rapid increase in river commerce, by tug-barge operations, will continue and that it will outstrip past performance. This will be particularly true when the Bonneville locks are improved to handle multiple barge tows such as made possible at other upstream dams as The Dalles, John Day and McNary.

Table II "Average Annual Commerce of Columbia-Snake Barge Waterway for 1952 and 2000," contains recent estimates. Although enormous increases are predicted—more than a six-fold increase for total tonnage and upstream movements, and better than 10 times for downstream tonnages — the estimators have indicated that the total commerce susceptible of development in the area to be served by the waterway would be in the range of 22½ million tons. However, for a variety of reasons (some of which might be questioned), the tonnages were arbitrarily reduced to a total of slightly over

Table II

Average Annual Commerce of Columbia-Snake Barge Waterway for 1952 and 2000

1952 Average Annual Commerce (Short tons)		2000 Average Annual Commerce (Short tons)	
Upstream		Upstream	
		Alumina	480,000
		Ammonia	139,000
Cement	70,000	Cement	70,000
		Industrial Chemicals	78,000
		Petroleum Coke	254,000
Petroleum Products	829,400	Petroleum Products	2,519,000
Miscellaneous	7,800	Miscellaneous	389,800
Sub-total	907,200	Sub-total	3,930,200
Downstream		Downstream	
		Aluminum and products	200,000
		Cement	200,000
		Chemical products	45,000
Grain	212,000	Grain	1,612,000
		Limestone	1,400,000
Logs (rafted)	254,000	Logs (rafted)	262,000
		Lumber and poles	410,000
		Paper products	96,000
Petroleum Products	60,400	Petroleum products	555,400
		Sawdust, chips, pulpwood	162,000
		Woodpulp and products	158,000
Miscellaneous	25,400	Miscellaneous	155,400
Sub-total	515,800	Sub-total	5,255,800
Grand total	1,423,000	Grand total	9,186,000

Source: Adapted from U. S. Army Engineers "Water Resource Development of Columbia River Basin", June 1958.

9 million tons. (The history of forecasting on the Columbia River has been often characterized by an "unbelief" of what might happen. Thus, past estimates have always been far too low when compared to actual).

Much of the increased anticipated commerce will require specialized barges, operating in multiple tows. Some preliminary studies are underway by the author regarding the possible usage of floating or semi-submerged plastic containers of the general type being developed actively in Germany and England for the transport, not only of liquids but also, of grain and such as sawdust and wood chips for pulp operations.

By mid-1959, there were 36 organized port districts to serve the Columbia Snake river waterway. The assessed valuation of these port districts at that time was close to $3 billion. These districts have expended considerable funds for the construction and operation of cargo-handling facilities of all kinds, for docks, warehouses, petroleum storage, grain elevators, boat and vessel harbors, drydocks, industrial sites, etc.

In addition to public investment at these ports, there are very substantial coordinate private facilities for the handling of maritime cargoes. For instance, in the Portland Harbor area, five of the general cargo berths are in private ownership; and of the five grain handling facilities, four are privately-owned, although the fifth, owned by the Commission of Public Docks (the 8,000,000 bushel capacity of which makes it the largest west of the Mississippi), is leased and operated by a private operator. Of total docks for general cargo, three are private. There are four private docks for grain, 6 for industrial purposes, and 8 petroleum docks.

Private Investments Large

The roster of private investment appurtenant to these shore-side facilities is quite formidable. For instance, it is estimated that the shipbuilding and ship repair industry alone, in the Portland area, ranges from $15 to $20 million annually. A new dry dock to be built starting in 1961 by the Port of Portland Commission (making a total of three major dry docks in the Portland Harbor), is expected to increase the annual value of that industry by as much as 50% in the near future.

Estimates have been made from time to time as to the total value accruing to the Lower Columbia river of its maritime and river commerce. These include the direct employment of over 5,000 longshoremen, seamen from ships entering the area, the major ship building and repair activity, the sums expended for normal voyage maintenance repairs and for ship stores. In 1958, it can be estimated that this value exceeded $40 million. These estimates did not include the value accruing from enterprises which encompass stevedoring, ship chandlers, freight forwarders and warehousers, customs brokers, banks and insurance companies, and those which are engaging in towing, lighterage and refueling of vessels, and so on.

Today, there is a growing volume of barge traffic which extends far beyond the sheltered confines on the Columbia-Snake waterway. Scheduled year-round tug-barge operations have been well established to and from Alaska points and the lower Columbia River; to and from California coastal points; and, in a small initial extent, to distant Pacific Basin ports such as the Hawaiian Islands. The relatively lower investment per ton-mile of capacity, the inherent flexibility and other favorable operating factors of large tug-barge operations lend credence to the belief that a very sizeable future portion of coastal maritime commerce will be handled by these means.

Some 35 ocean carriers, regularly-scheduled, and many unscheduled ocean carriers, serve the Columbia River area. Of the 34 essential World Trade Routes established by the U. S. Maritime Administration, eight include the lower Columbia river. Trade Route 29 to the Far East, as might be expected, has been important to this time to the Columbia River seaway. For example in 1957, sailings from Portland Harbor on this route accounted for almost half of total. During the same year, the Harbor had a total of almost 1,600 sailings in foreign, coastal, intercoastal, Hawaiian and Alaskan service.

THE OUTLOOK FOR GROWTH

Several discernible and measurable factors assure a continuing growth of water-borne commerce on the Columbia River waterway. These can be summarized as follows:

(1) The continuing improvement of the waterway by means of channel widening and deepening; the rectification of the Bonneville Dam lock; the completion of John Day Dam; and others on the upper Columbia (to Rock Island Dam) and on the Snake to Lewiston; and some eventual improvement of the Willamette to the Salem-Albany area.

(2) The rapid improvement of shore-side facilities at all ports along the entire waterway, through the providing of new docks and wharves, cargo-handling equipment, warehousing and storage buildings and structures, land sites for the erection of such facilities and for the establishment of industry oriented to water-borne transport.

(3) The advantages, both physical and economic, of water-borne commerce as they facilitate the competitive reaching of traditional as well as new markets for the varied products of the Columbia Basin, and the inbound movement of both raw materials and finished products essential to the maturing of the economy of the Basin.

With regard to waterway improvements, the programs of the U. S. Army Engineers received militant support in the Congress by Pacific Northwest public and private elements within the hinterland served by the waterway. Much of necessary correlation of effort *vis a vis* Congress for the authorization and appropriation process involved in waterway improvements, is accomplished through the Inland Empire Waterways Association, whose programs and efforts are supplemented by the Columbia River Development Association, which particularly devotes its attention to the stretches of the waterway from Vancouver, Washington to the McNary Dam area.

Growth Elsewhere Proves a Boon

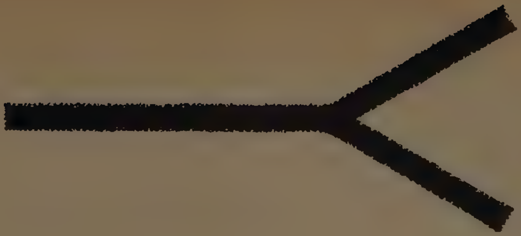
Markets for the major portion of Columbia Basin products are long distances away, to California and east of the Rockies. The constant rise of rail freight rates has placed the Northwest in an increasingly disadvantageous competitive position. This has forced the region's productive units to seek new markets and to increase the inherent value of its products so as to minimize the percentage impact of the costs of freight to market. The availability of the waterway, has been of extreme importance in providing some degree of control over land-based transportation costs through water-compelled rates. However, even more important, is that the multiple-purpose development of the entire Columbia River, within itself, combines tools of production and marketing: irrigation for agricultural development; power for industrial resources development; and a controlled waterway to transport both raw materials and finished products. The importance of these tools, although already of prime economic effect, is certain to increase in the near future.

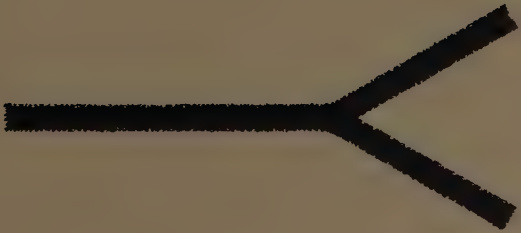
The fantastic growth of California, with its teeming millions in the San Francisco and Los Angeles area, has had measurable effect in the encroachment of rural and agricultural economies by increasing urbanization. Lands hitherto noted for diversified agricultural production now support vast urban communities. Waters painfully and expensively stored and transported from distant watersheds for irrigation are now becoming pre-empted for domestic, commercial and industrial purposes. The extent to which this situation will create demands for Pacific Northwest agricultural production, and shifts therein, is not yet clearly measurable, but it is perceptible. As a consequence, it appears very likely that water-borne facilities between the Columbia River and California ports will expand in their vital importance.

Similarly, the marked increase in industrialization of the Columbia basin necessitates the in-shipment of important off-shore raw materials which the Pacific Northwest does not possess. These include salt and sulfur, metallic ores and various chemicals the region cannot as yet produce economically to satisfy its own demands. Conversely, the markets of the Pacific Basin, which can be served from the Columbia Basin's productive capabilities, are in process of development, in spite of political instabilities of the present times.

All in all, the existing benefits and the promise of the Columbia River waterway pervades the thinking and actions of its entire vast hinterland area. Land planning, community planning, the forward engineering of highways and roads, and power networks, all consciously reflect the irresistible force of the River, drawing together in unified manner the productive elements of the region. The potential for growth is assured and very great.

On a railroad map,
this means a mine tunnel





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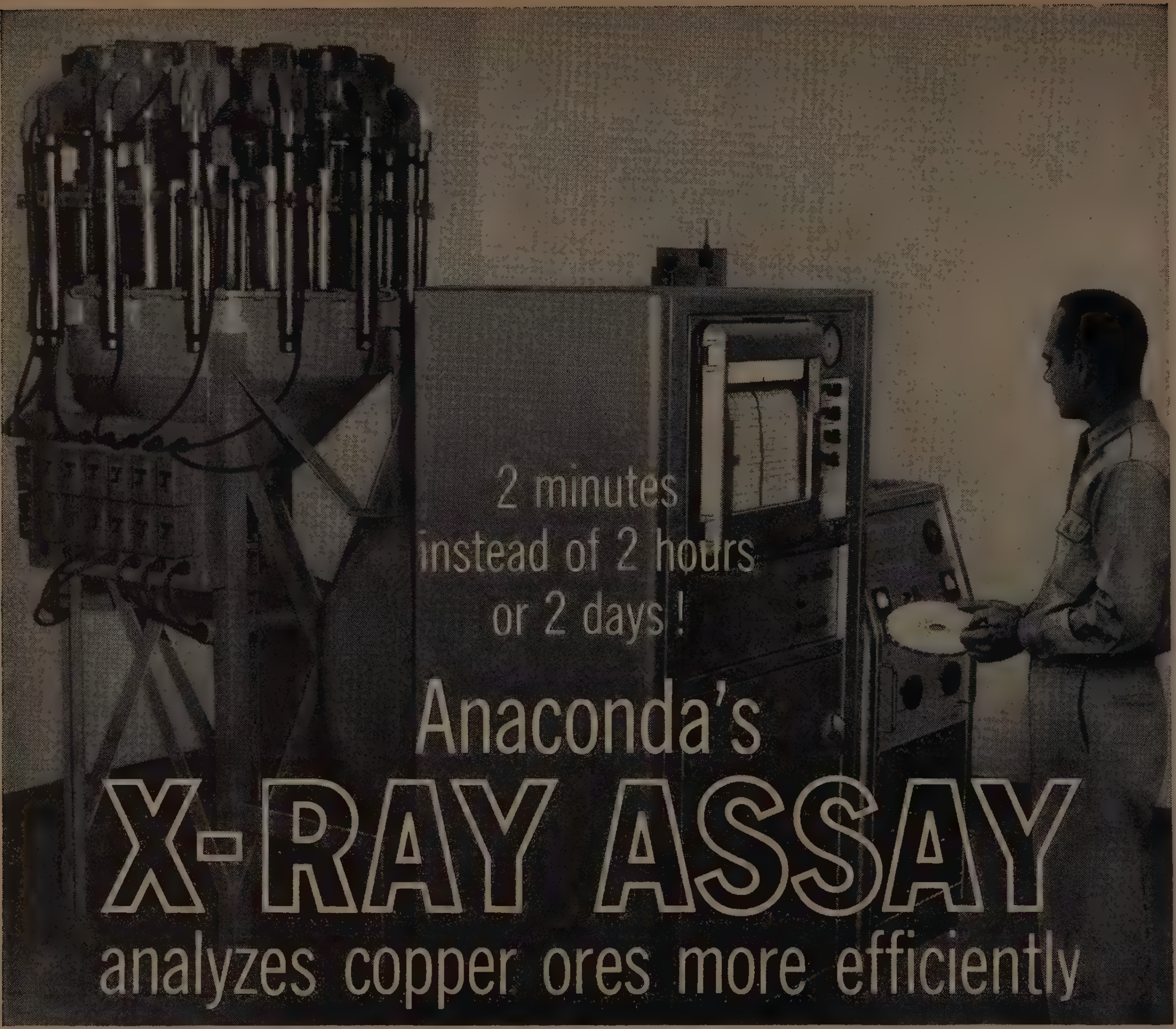

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AMF associates say:

OVERSEAS BUSINESS OUTLOOK GOOD

The following article, consisting of interviews with outstanding personalities from six different foreign countries, is somewhat unique insofar as The Financial Analysts Journal is concerned. And because such an article ploughs new ground, and because of its different features, we will welcome reader response, so that we can decide whether to repeat the "technique" at some future date.—Editor.

FOR THE FIRST TIME in the corporate history of American industry, overseas business partners, major customers and company managers — citizens of six free world countries — came to the United States to give corporate stockholders a first-hand report.

These overseas representatives, from Australia, England, Japan, Mexico, Pakistan and Turkey, are all affiliated, in one way or another, with American Machine and Foundry Company. And, sitting as a panel, at AMF's 1960 annual meeting, stockholders were free to ask these overseas representatives a multitude of questions.

The Financial Analysts Journal's Managing Editor Warren Burns, in a special board room session, the day prior to the annual meeting, acted as moderator. And thus, this highly informative material became available in a somewhat unprecedented manner. It was a unique opportunity to probe into the economics of six nations around the world. Attending this session, in addition to the six overseas representatives, was AMF's International Vice President Frank White.

The discussion got underway with the following brief statement by Mr. Burns:

Gentlemen: This is an international interview with you who are affiliated with AMF overseas. I believe you know that *The Financial Analysts Journal* is published by *The National Federation of Financial Analysts Societies,* an organization comprised of 24 Financial Societies in the United States and Canada. There are also several European Financial Analysts Societies and we're looking forward, one of these days, to counting them among our membership. Undoubtedly, some of you know our European brethren, so to speak. Now, our discussion today is entirely informal, and I want you all to feel free to interrupt at any time. Financial Analysts are particularly interested in the investment possibilities in your countries. And at the same time their concurrent interest lies in the economies of your countries, the increasing leisure time, and the growing needs of your nationals. I believe that it will be appropriate if, first, we have a few words from AMF's Vice President White. Mr. White, how do you think U. S. companies can best compete overseas in countries where labor rates and perhaps raw material costs are lower?

Mr. White: I assume you mean by that question how can American exports compete?

Mr. Burns: Right.

Mr. White: I think American exports not only can but are competing successfully in many lines. One way is to have a superior product. Another way is to have a product that is designed specifically for the export market, which too often is not true in the case of the American exporter; and the third way is to have superior selling and merchandising methods behind your marketing efforts in the export market. And here again I think American companies are really in the early stages of their development. American companies traditionally have concentrated on the home market, and it is really only in recent years that they began to give first attention to this question of exports.

Mr. Burns: In other words you think that we are just beginning to develop our overseas markets?

Mr. White: Yes, I believe that very firmly.

Mr. Burns: Well, do any of you other gentlemen wish to comment? Mr. Inouye, what do you think?

Mr. Inouye: Japan has cheap labor, but how can Japan compete with American goods exported to Japan? American companies have been spending plenty of money for research and development, as well as new machinery and new products. Japanese manufacturers cannot do this. For instance, AMF is spending more than 11 million dollars for research and development in 1960.

Mr. Burns: As you have noted, by the copy of the last issue of *The Financial Analysts Journal,* our lead article was about Japan. The author of that article spoke of a Japanese-manufactured motor car called "Toyopet." Are you familiar with that car?

Mr. Inouye: Indeed I am. I have one.

Mr. Burns: Fine. Now, I was wondering if, in the future, you think that exporting this car from Japan will have an appreciable effect on the compact car market in the United States?

Mr. Inouye: Well, it's an excellent car, but it will

AMF associates who constituted the overseas panel were: T. J. N. Foley, chairman of British Tobacco Company (Australia) Limited; William Cartlidge, assistant managing director of Associated British Cinemas Limited; Juro Inouye, general manager of AMF Overseas Corporation, Tokyo; Jorge Rosenfeld, president of Industrias Cora S.A. de C. V., Mexico; Dr. I. H. Usmani, chairman of the Pakistan Atomic Energy Commission; and Omer Rifik Yaltkaya, director of the State Monopolies of Turkey.

Interior view, looking down into the pool from the control bridge, of a typical AMF-designed and built swimming pool type nuclear research reactor. AMF, the world's largest designer and builder of nuclear research reactors, has completed, or has under design and construction, 21 of these nuclear research reactor projects, 13 of which are in countries outside of the United States. The reactors are used for industrial, agricultural and medical research and for the training of nuclear scientists.

be difficult for it to compare with the older, more established compact cars in the United States.

Mr. Burns: Well, with Japanese ingenuity, I'm sure that improvements will come with research and development.

Mr. Inouye: I hope so.

AUSTRALIAN SEES RESEARCH AND DEVELOPMENT IN U. S. AS 'A VERY BIG ADVANTAGE'

Mr. Burns: Fine. Now, Mr. Foley, we're very happy to have you from Australia, and in relation to the question I asked Mr. White about how American companies can best compete with overseas companies, you must have some reaction to that?

Mr. Foley: Well, Mr. Burns, I do agree with Mr. White's remarks. There are many American companies who have, for some years, been competing very successfully, as far as their country is concerned; and in addition to the factors that he mentioned, I think there are two others that put American manufacturers so very much further ahead: One is the research and development that Mr. Inouye has mentioned. And while I know that I have seen some of the size of the research and development projects in this country, I can quite easily realize that it is a very, very big advantage indeed, and likely can more than offset any disadvantages there may be in countries where there are cheap labor and cheap raw materials. The other factor, I think, is one that naturally comes from the size of American industry and even though we rather pride ourselves in the fact that we are developing some American production techniques, we just cannot hope yet to match them.

Mr. Burns: That is interesting Mr. Foley, and I was particularly interested during luncheon when you told me that Australia was larger than the United States.

Mr. Foley: In area only.

Mr. Burns: Well, that's fine, but I imagine that in the future you have some ideas that perhaps you can compete in an economic way, given another 100 years.

Mr. Foley: Well, we are hoping to. The situation perhaps is this, that although we are still a very small country population-wise, there have been considerable developments over the last 10 or 15 years since the war which made us feel that we may, in 100 years, do something about catching up in the techniques which are so necessary.

Mr. Burns: You also mentioned the possibilities that if sea water can be converted into fresh water that that would do a great deal for the ranching activities in Australia. Is that so?

Mr. Foley: No question about it. Water is one of our greatest problems.

Mr. Burns: And you figure that perhaps water conversion could even change the climate down under?

Mr. Foley: If ever that type of thing becomes really a commercial proposition you will find a good customer in Australia.

Mr. Burns: That is very good. Now, Mr. Cartlidge, of course you people in England knew a great deal more about export markets than we did in the United States, for a long while, but I think we are catching up. During lunch you mentioned something about the motion picture theatres in England. I didn't realize that AMF was in that field, except reading it casually in the annual report. You mentioned a few things at luncheon that I would like to have you elaborate a little more upon.

Mr. Cartlidge: Certainly. Associated British Cinemas, which I represent, is a subsidiary of Associated British Picture Corporation. This is the parent group in which Warner Brothers have a 37½% holding of the ordinary stock. This gives us a very close tie with Americans at the present time. In fact we have worked very very closely with Americans these past 20 years or more, and it is a very friendly and harmonious association. Now, it is in connection with our chief subsidiary, Associated British Cinemas that we have an association with AMF and have started off by allowing them to rent one of our cinemas and converting it into a bowling establishment. We ourselves are at present engaged in converting another cinema in Daagenham, opposite the Ford Motor Works, into a bowling establishment. And we have people going around Great Britain seeking other cinemas suitable for conversion, or better still to find sites on which to establish buildings specifically to house bowling. We think that in a year or two's time we should be having a very close and big association with AMF. The details are still to be ironed out. We see eye-to-eye with each other so far in the scheme of things, and I believe that we shall have a big and lasting association. If bowling takes on in Great Britain, and we confidently expect it will, I am sure AMF and A.B.C. will be right at the heart of the matter and will have a very prosperous association.

Mexican Market for Wheel Goods Big and Getting Bigger Daily

Mr. Burns: Now, let's turn to Mr. Rosenfeld, from Mexico. We understand that there is quite a market in your country for juvenile wheel goods. What about it?

Mr. Rosenfeld: It is quite big and it is getting bigger every day. The birth rate in Mexico is one of the highest, about four percent a year, I'd say, making it the second highest in the world. And of course this creates a large youth market.

Mr. Burns: Specifically, what do you mean by wheel goods. I can think only of bicycles and wheelbarrows, and . . .

Mr. Rosenfeld: Well, bicycles, of course. Then there are tricycles, scooters, wagons — anything for a boy or girl on wheels.

Mr. Burns: And so the future looks rosy?

Mr. Rosenfeld: Indeed yes. We definitely think that the juvenile wheel goods situation, where we are first in Mexico, is going to grow bigger. Then, we can probably export to South America, which we are not doing now. Our prices are still higher than U. S. prices because our raw materials are most costly. But, with our cheap labor, we probably can do something in the near future. AMF helped give us a start in Mexico on a licensee basis, and now that we are in partnership with AMF we are getting a lot of additional help—and not only technical know-how and capital, but in new products from AMF research. I mean, we cannot afford this type of research which is one of the biggest assets we can get from American industry.

AMF panel members who participated in the international discussion are: from left to right: T. J. N. Foley, Australia; Frank X. White, standing, AMF's international vice president; Jorge Rosenfeld, Mexico; Carter L. Burgess, AMF president; William Cartlidge, Great Britain; Juro Inouye, standing, Japan; Dr. I. H. Usmani, Pakistan; and Omer Refik Yaltkaya, Turkey. Seated back to camera is The Journal's Managing Editor Warren Burns.

Mr. Burns: Fine. Now, how is business generally in your native Mexico City? This is where your company is located, I believe?

Mr. Rosenfeld: Yes.

Mr. Burns: Very recently it was announced that the Prudential Life Insurance Co. was investing $100 million in your country. I presume you're well acquainted with . . .

Mr. Rosenfeld: Yes. Oh, sure.

Mr. Burns: What was the reaction down there?

Mr. Rosenfeld: The reaction was excellent. I mean, we have been waiting for this for the last 20 years. And I think that the present time is the best moment that the United States can invest money in Mexico.

Mr. Burns: In other words we weren't just talking; this is doing something?

Mr. Rosenfeld: That is right. I mean, that is the biggest act of confidence we have had from the United States—this hundred million dollars which the insurance company invested.

Mr. Burns: Well, what do you think is going to follow? Do you think that other American companies are going to invest in Mexico now?

Mr. Rosenfeld: Oh definitely. There is no question about that. You see, everybody was afraid, even 18 months ago, about the Mexican devaluation. Now that is not so. I mean, the picture is completely on the other side. Everybody is figuring getting back their outside money. Even Mexicans.

Mr. Burns: It was all a plus, the reaction.

Mr. Rosenfeld: That is right. I mean, not only this investment but I think the visit of our President Lopez Mateos in November to the United States and the meeting between Mr. Eisenhower and our President in Acapulco last year created a new climate of cooperation. When our President came to see Mr. Eisenhower in Washington the reaction was so good in Mexico—I am not talking now about the United States reaction, it was the Mexican reaction and the reaction of foreign companies in Mexico was so good that their thinking was completely reversed. There is nobody talking about devaluation anymore and I am positive there is not going to be devaluation—at least not for the next five or six years.

Mr. Burns: This should help investment rather than handicap it?

Mr. Rosenfeld: Everybody in Mexico up to now has been investing in real estate because that was the only thing that more or less stayed on level, even if devaluation came. Now real estate is not so interesting anymore. Factories, which we need, and agricultural development are more interesting. Even Mexicans who had money outside Mexico, you know in Switzerland and in the United States, are bringing it back because in Mexico they can now get 12% interest. And in foreign countries they have probably three percent or three and one-half percent. I would say our foreign currency reserve is going $500 million which is the best it has ever been.

Mr. Burns: Returning for a moment to Mr. Cartlidge, and thinking of investments. What are the investment opportunities in British companies?

Mr. Cartlidge: You mean American investments in British securities?

Mr. Burns: Precisely.

Mr. Cartlidge: The big British companies?

Mr. Burns: Not necessarily only the big companies.

Mr. Cartlidge: Well, I don't know that I'm very well qualified to answer that question, other than to say it has occurred to me, just as a layman, that on investments, in a lot of British companies, the return seems to be considerably higher than on similar investments in the United States. This seems to attract a lot of money into some of these big companies, like English Electric, Inc., and a great number of them—I just can't reel off at the moment. There has been a lot of American money going to the English market and the yield seems to have been considerably brought down over the past 12 months. The yield would seem to be around about five percent and most of them seem to have come down in gross stock somewhere near three and two and a half.

Mr. Burns: Three and two and a half percent . . .?

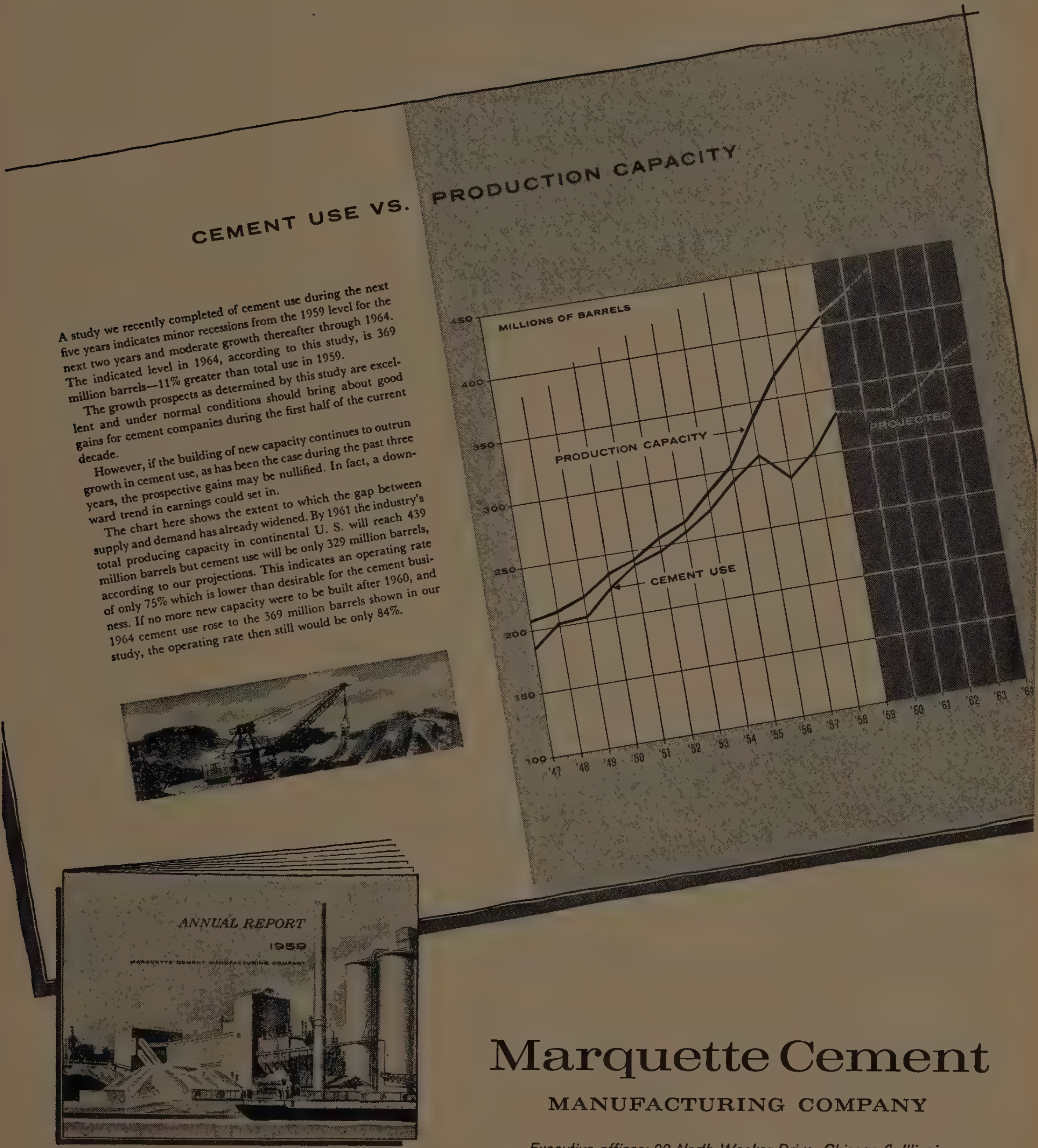
Mr. Cartlidge: Which would indicate that there is a lot of enthusiasm over here for investment in British companies, with Americans believing that we have a great future, much growth potential.

Mr. Burns: Very fine. Mr. Foley, I would like to ask you the same question about Australia, remembering that your country is bigger than the United States.

Mr. Foley: Shall we say that leaves plenty of room for improvement. But I think the situation is such that our future is based on those two facts. One, the very large size of the country with very wealthy natural resources and, up to the present time, by world standards, a very small population. Coupled with that is the other fact that since the war we have had a very rapidly increasing population in our country. It is running now, I think, somewhere between two and a half and three percent per annum, that being a combination of both immigrant population and natural increase, and that increase in population seems to be just at the beginnings of a very big developmental period. In addition, over the same period there has been a strong move into secondary industry. There were, I think in 1946, about 31,000 factories in Australia. There are now just over 60,000 factories. About thirty per cent of the total work force is now engaged in the manufacturing industries and it accounts for a little over a third of the total national income. Now, compared with the immediate pre-war period, that's a very, very large change because we were almost entirely a primary production country at that stage. With those activities going on, I do believe that the investment possibilities for overseas capital are very strong indeed. The current situation is that there are many quite sound companies that can give yield of probably five to six and a half percent on the common stock, but the real growth companies are rated on a yield basis, somewhere between three and four percent, and there are quite a number of those com-

Marquette reports

A significant page from our 1959 annual report points out that the building of further unneeded cement production capacity could adversely affect the industry in the years ahead.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ANNUAL REPORT
1959
MARQUETTE CEMENT MANUFACTURING COMPANY

CEMENT USE VS. PRODUCTION CAPACITY

A study we recently completed of cement use during the next five years indicates minor recessions from the 1959 level for the next two years and moderate growth thereafter through 1964. The indicated level in 1964, according to this study, is 369 million barrels—11% greater than total use in 1959.

The growth prospects as determined by this study are excellent and under normal conditions should bring about good gains for cement companies during the first half of the current decade.

However, if the building of new capacity continues to outrun growth in cement use, as has been the case during the past three years, the prospective gains may be nullified. In fact, a downward trend in earnings could set in.

The chart here shows the extent to which the gap between supply and demand has already widened. By 1961 the industry's total producing capacity in continental U. S. will reach 439 million barrels but cement use will be only 329 million barrels, according to our projections. This indicates an operating rate of only 75% which is lower than desirable for the cement business. If no more new capacity were to be built after 1960, and 1964 cement use rose to the 369 million barrels shown in our study, the operating rate then still would be only 84%.

If you wish more facts about Marquette, we will be pleased to send you a copy of our annual report for the year ended December 31, 1959. Write to Director of Public Relations.

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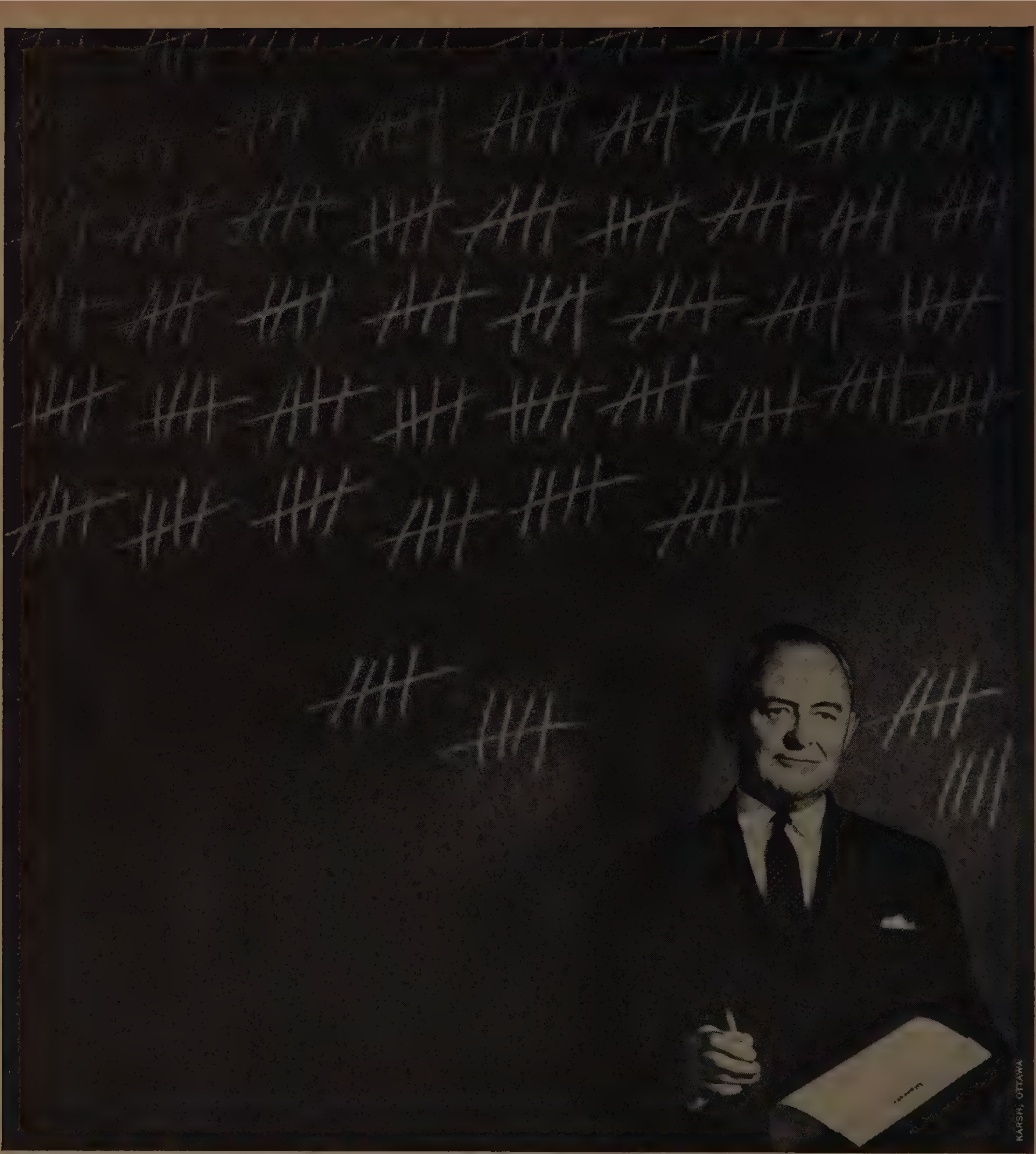

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BETTER than one every working day—that's the "score" for industrial developments along our lines in 1959. And what a range of activities they cover! Pulp and paper . . . chemicals . . . textiles . . . lumber, woodworking and building materials . . . metals and metalworking, to list but a few. You name it—the modern South has it.

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Let us hear from you so that we can help you. *"Look Ahead—Look South!"*

Harry A. DeButts
PRESIDENT

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LOOK SOUTH LOOK AHEAD

SOUTHERN RAILWAY SYSTEM
WASHINGTON, D. C.

panies that we shall look to in the future. Australians I'd say, welcome the arrival of overseas capital, whether it be American, British or any other interested investor.

Mr. Burns: And treated kindly.

Mr. Foley: I think treated kindly. There are certainly no restrictions now. As you probably are well aware, there have been a number complications over the previous 10 to 15 years because of our currency difficulties, but they have almost entirely disappeared. The last of our import restrictions were taken off some three months ago. No, that is not quite correct; motor cars are still restricted until later this year. I think the first of October.

Mr. Burns: You mean the imports of foreign cars to Australia?

Mr. Foley: Yes, the imports of foreign cars, yes. But from a capital point of view, there is now no problem about funds moving into or out of the country. There is certainly no danger of foreign capital being confiscated, nationalized or any other word you might like to use. So, in general I would say that foreign capital would be treated very kindly and be very highly welcomed there. The only variation I would make on that would be that I think Australians do value the idea of participation with overseas capital coming into the country.

Mr. Burns: Now that Mr. Yaltkaya of Turkey has just joined us I'd like to ask him a question or two about the economy of his country. How much of Turkey's tobacco crop is consumed in your country and how much is exported?

Mr. Yaltkaya: We use one-third of the crop and two-thirds is exported. Almost 50% of our exports go to the United States, and every leading brand of cigarettes in the U.S. contains its share of Turkish tobacco.

Mr. Burns: Why is that?

Mr. Yaltkaya: Because Turkish tobacco, especially tobacco from the Aegean Sea and Samsun areas contain the least amount of nicotine—as low as one percent, which is the lowest nicotine content of any tobacco anywhere in the world.

Mr. Burns: Does Madison Avenue know that?

Mr. Yaltkaya: Yes, and at the same time it is a real sweet tobacco and also has very low tar content. So, in every blend it makes the blend milder and sweeter without taking a part in the characteristics wanted in the actual blend. I mean, if people would like, for example something which reduces the strength of the smoke it would change the flavor of the cigarette. But this tobacco is neutral and sweet and with low nicotine and tar contents and consequently blends into all types of cigarettes.

Great Opportunity Seen for Investment Of American Capital in Turkey

Mr. Burns: I note that Mr. White just moved to the other end of the room, and thinking that he might suddenly be called away I'm going to ask him if he'd like to make any observation at this minute. As AMF's International vice president you may wish to interject a word of two, before we proceed.

Mr. White: Well, as you've already surmised—and if you'll pardon my direct reference to American Machine and Foundry—I'd like to say that the outstanding fact about our company is its tremendous diversification, and this has been brought out to some extent. Sixty years ago AMF was founded as a manufacturer of tobacco machinery, and that has been our principal association with the Turkish State Monopolies, and with the British Tobacco Company of Australia, Mr. Foley's company. I think it is interesting that the tobacco companies are getting interested in some of our other lines of endeavor, and this, of course, from our point of view is a perfect justification of our policy of diversification. In connection with investment opportunities abroad, whereas I recognize the opportunities that are presented in countries like England and Australia (and I am familiar with the opportunities in Mexico), I think it should not be overlooked that perhaps one of the greatest opportunities of all lies in Turkey, a country which has not yet, I think it is fair to say, Mr. Yaltkaya, moved into the industrialization they have in Japan or Australia or Mexico. In Turkey there is a highly intelligent and hard-working population and I am confident that within the next 10 years or so there will be a very great movement of American capital into Turkey, something we are watching very closely ourselves. There are already signs of this movement.

Mr. Burns: All right, Mr. Yaltkaya?

Mr. Yaltkaya: Thank you Mr. White. I should like to say a few words about foreign and especially American capital in Turkey. Turkey, after the second world war, as a country and as a nation, was on the move. She decided that agriculture was not sufficient for having the standard of living which would make people happy. Industry had to help balance the economy and in order to speed it up the government had a special law passed by the Parliment to encourage and invite foreign capital. It has worked well. Today we have factories in an American and Turkish partnership. We have pharmaceutical establishments of great reputation. We are to have a new steel factory soon and our production will be about tripled. Then we are manufacturing agricultural equipment as well as establishing different chemical industries. Industrial development in Turkey is really going at great speed and new organizations are investing money in my country. Turkey has coal, iron ore and some oil. This makes it quite easy to manufacture important raw materials for almost any type of new business. About oil, about 20 oil companies are doing exploratory work right now, in all sections of Turkey, and we confidentially expect petroleum production to increase.

Mr. Burns: That sounds as if we'd be hearing considerably more about Turkish investments.

Mr. Yaltkaya: Yes indeed. Currently there are many well-known companies, American and from the

Continent, investing money and forming partnerships with Turkish businessmen.

Mr. Burns: And while on the subject of investments abroad, and looking at Mr. Inouye, just across the table from me, I'm going to ask him about investment opportunities in Japan. We know that many American companies have established plants over there, and we know that many U.S. based companies are sending personnel to Japan. But what is the current Japanese feeling about freer foreign trade?

Mr. Inouye: As you probably know, we had two conferences on freer Japanese foreign trade during the last year. One was GATT [General Agreement on Tariffs and Trade] and the other one was the International Business Conference. During these two conferences the Japanese Government declared that a freer foreign trade policy is to be adopted. This means Japan has plenty of dollars now—and pounds too. So, it's very clear that Japan has decided to favor freer foreign trade. However, this has not been announced by my government officially; but we are going in the direction of a freer policy, that is sure.

Mr. Burns: Fine. Now a word or two about American-style bowling. How is that sport doing in Japan?

Mr. Inouye: It should be increasingly popular. Japanese like American baseball very much, you see. We have our own professional baseball teams, and sometimes they go to one of your newest states—Hawaii—for games.

Mr. Burns: As a baseball fan, I'd like to see that sport an international one with overseas games scheduled regularly. Thank you Mr. Inouye. Now, to return for a moment to Mexico's Mr. Rosenfeld who, perhaps, would like to comment on Latin American investments in general. What about it Mr. Rosenfeld?

Mr. Rosenfeld: Well, I believe that Mexico will become the leading Latin American country for outside investments. And, as a matter of fact, this seems to be happening already. This should encourage an easier investment climate in other nations south of the U.S. borders. To return for a moment to the recent $100 million U.S. investment, money loaned to the Nationale Financier, which is Mexico's government agency for financing big and small industries. If a private U.S. company has this kind of confidence in a semi-government institution, it certainly will generate greater confidence in U.S. companies—which is only natural. It was very impressive. I can tell you. Everybody is still talking about it!

Mr. Burns: It's always nice to be well thought of by our good Mexican friends. Now, jumping for a moment from Mexico back to England—a jet ride of how many hours Mr. Cartlidge?

Mr. Cartlidge: You're right, not many hours.

Mr. Burns: Well, now that we're there, any further observations, Mr. Cartlidge?

Mr. Cartlidge: Well, yes. I imagine you know that American capital investment in Britain exceeds $2,350,000,000, and there are about 450 American manufacturing businesses in Great Britain. They employ over 300,000 British citizens, and this is growing all the time. Surely this is a measure of confidence which Americans have in the British economy at the present time. We are living in a very buoyant economy, and Prime Minister Macmillan has said "We never had it so good."

Mr. Burns: From the looks of our friend, Mr. Foley from Australia, he has something he wishes to add. Right?

Mr. Foley: Right! I just wanted to say, in relation to bowling and how it's catching on in London. That's good news for us, but we're not as far advanced. We are hoping that the first two bowling centers will open in Australia by July, or at least early in August—one in Sydney and one in Melbourne. There never has been any game in Australia quite the same as tenpin bowling. So many of our people are originally of British stock, and I think that if this game takes on in the United Kingdom, we in Australia have every opportunity to make a success of it.

Pakistan Plans Nuclear Energy Development Within 10 Years

Mr. Burns: Thank you Mr. Foley. And I'll look forward to that kind invitation to visit your country. Now, to fly to Pakistan, so to speak, and hear a word from Dr. Usmani who heads Pakistan's Atomic Energy Commission. Dr. Usmani, I understand that AMF is associated with your country's atomic energy program and, as a matter of fact, has drawn up a plan for a complete nuclear research center for Pakistan. How far in the future is the use of nuclear power in Pakistan?

Dr. Usmani: The future of nuclear power in all under-developed countries is very bright. But the difficulty is that to implement that program we have to work out the economics of nuclear power and also to train a very large number of nuclear engineers and nuclear scientists. And we are hoping that as soon as there is a major breakthrough, which makes nuclear power economical and competitive, we will take advantage of it. But that would, I think, take another ten years or so.

Mr. Burns: Why is there such a tremendous need for this form of power in Pakistan?

Dr. Usmani: You see, we have the conventional fuels but, unfortunately, the deposits of coal we have

Industrial Reactor Laboratories, Inc., a $4,000,000 nuclear research center at Plainsboro, New Jersey, is among projects which AMF and nine other major industrial companies have, comparatively recently, designed and built. The other firms are: American Tobacco Co., Atlas Powder Co., Corning Glass Works, Continental Can Co., National Distillers and Chemical Corp., National Lead Co., Radio Corporation of America, Socony Mobil Oil Co., Inc., and United States Rubber Co.

are very low grade and we have to import coal from abroad to the tune of about $12,000,000 every year. In addition to diesel oil and petroleum products, which makes the cost of the generation of power very, very high indeed, we have the hydro-power resources also. But on the whole, the cost of generating electric power comes to about 24 mills per unit. And we are hoping that with nuclear power, we will not only cut the transportation, storage and our recurring expenditure of foreign exchange, but we'll also be in a position to reduce the cost for use in industry as well as on a larger scale in agriculture.

Mr. Burns: To what specific applications would the power be applied?

Dr. Usmani: Well, it would mostly be applied to agriculture and then industry. We have very vast tracts of land which must be irrigated and water must be pumped for long distances. And, unless cheap power is made available the production of food from irrigated crops would suffer.

Mr. Burns: If an American businessman was considering investment in Pakistan, what areas do you think offer the greatest opportunities for him?

Dr. Usmani: Well, as I said, agriculture is our biggest industry, and for agriculture to thrive we must have fertilizers. Fortunately, we have very great resources of natural gas which is the base for fertilizers, and I would recommend the establishment of a petrochemical industry in Pakinstan based on natural gas. Without the basic chemicals, no program of industrialization can, in my opinion, compete. And these are two fields in which American capital would not only be welcomed but given all possible concession.

Mr. Burns: Thank you Dr. Usmani. That winds up our discussion, and once again I'd like to thank you all for such an interesting presentation.

THE DAYTON POWER AND LIGHT COMPANY
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151st Common Dividend

The Board of Directors has declared a regular quarterly dividend of 60c per share on the Common Stock of the Company, payable on June 1, 1960 to stockholders of record at the close of business on May 16, 1960.

GEORGE SELLERS, Secretary
May 6, 1960

AMPHENOL ★ BORG ★

Dividend Notice

Broadview, Illinois—At a meeting of the Board of Directors of Amphenol-Borg Electronics Corporation held today a quarterly dividend of thirty-five cents (35¢) per share was declared payable June 30, 1960, to the stockholders of record at the close of business June 16, 1960.

FRED G. PACE, Secretary.
May 24, 1960.

P. Lorillard Company

DIVIDEND NOTICE

Regular quarterly dividend of $1.75 per share on the Preferred Stock and regular quarterly dividend of $.55 per share on the outstanding Common Stock of P. Lorillard Company have been declared payable July 1, 1960, to stockholders of record at the close of business June 3, 1960. Checks will be mailed.

New York, May 18, 1960 G. O. DAVIES, *Treasurer*

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The Law of Trust Investment

. . . . in which the 'Prudent Man' Theory is evaluated

by Harold B. Elsom

THE CORPORATE TRUSTEE is a growing factor in the American economy—a buyer and seller of securities, a provider of capital, an income producer for dependent individuals and institutions, and finally as a prospective employer of many wage earners, including Financial Security Analysts.

That this fact is not always well attended is apparent from the occasional failures of the financial community to understand this market which it seeks to cultivate. It is also apparent in some instances where Financial Analysts desire to establish associations with corporate trustees. And of importance in this failure of understanding is the law of trust investment.

Many persons (some trustees themselves) conceive of this subject as an ambiguity whose edges blend imperceptibly into areas of surcharge — a word of anathema signifying the trustee must foot the bill for his mistakes. Our theme begins, therefore, with the simple assertion that the manner of achieving legally acceptable discretion is better defined than is commonly supposed, owing to the convergence of several simple rules on any given problem. In a word, the overlapping of these rules lends clarity which no single one of them exhibits within itself.

We shall deal with the "Prudent Man Statute" of the State of Texas (Sec. 46 of the Texas Trust Act) and the related law of Texas and other states. The statute varies little from similar statutes of other states. We shall also observe the general body of the law of trust investment because the Texas Trust Act recognizes the common law. Our remarks have no point in states which do not follow the "Prudent Man" rule. The Texas statute reads in part:

> ". . . the trustee shall exercise the judgment and care under the circumstances then prevailing, which men of ordinary prudence, discretion and intelligence exercise in the management of their own affairs, not in regard to speculation, but in regard to the permanent disposition of their funds, considering the probable income therefrom as well as the probable safety of their capital. Within the limitations of the foregoing standard, the trustee is authorized to acquire and retain every kind of property, real, personal or mixed, and every kind of investment . . . which men of ordinary prudence, discretion and intelligence acquire or retain for their own account . . ."

Harold B. Elsom, vice president and Trust officer, Texas National Bank of Houston, is completing his 27th year with that organization. Mr. Elsom holds a LL.B. from the South Texas School of Law. He has also served in all executive capacities for the Houston Corporate Fiduciary Association.

The Legislature could not have used more comforting language, providing it meant literally what it said (an unlikely occurrence). Every kind of investment is authorized. Nothing is said about analytical standards; and most prudent men are not Financial Security Analysts.

Looking to the statute alone, it would not be difficult for a trustee, having expended all of the funds of a trust in real estate, and finding himself beset by litigants, to produce as expert witnesses men of conceded probity, intelligence and discretion, who invest their funds solely in the good earth; and who do so, not from speculative motives but with pure investment objectives, due regard for permanent disposition of their funds, probable income and probable safety of their capital. Having been actuated by identical consideration, the trustee would be shielded from liability. Similarly, prudent men can be found who invest only in single stocks, only in oil properties, only in government bonds, etc.

Thus, to the average reader, the fairly implied spirit of the statute is generous. This implication is deceptive. The phrases used do not have the inferences attributed to them by ordinary gentry. Much of the language was extracted from a case decided in 1930, since modified. Again, trust investment is affected by custom, official rules, and case law not alluded to in the enactment, except for the reference to the common law. Hence, trust men and attorneys do not rely on the conclusions which our examples suggest.

Resorting to the cases, we find few that are helpful; i.e., few that were decided after the effective dates of such legislation. We have examined several legal opinions which culminate in stating that prudence is a question of fact to be determined by a jury or by a court, in the light of all the circumstances bearing on the case at issue.

This is not very helpful. We hasten to add, however, that it would be unfair to expect our lawyer friends to produce law which isn't there. It is also oversimplification; there is some law which attorneys bring to our attention with competence. The current of our thought is nonetheless true: there are few case guides on the statutes.

We are not sure, for instance, what is meant by "permanent disposition of their funds." We are not sure the legislature means it when it says, "which men of ordinary prudence, discretion and intelligence exercise in the management of *their own* affairs." If so, it upset an established common law precedent. Or, what did the lawmakers intend when they utilized the phrase, "probable safety of their capital?" "Funds" is used in connection with permanence of investment, "capital" in connection with safety. Are they contradistinct?; or are they used interchangeably?

Statute Creates a Puzzle

An important point lurks here. "Funds" could be taken to mean money set aside for a purpose, the emphasis being on dollars or their equivalent, available either constantly or at a future time, or on the happening of an event. "Capital" in an ordinary sense might signify wealth or anything of economic value usable for the production of more wealth. If "capital" were used to denote safety of funds, a dollar conservative approach would be enjoined, based on the trustee's ability to deliver the money originally entrusted to him, or its equivalent. If "safety of capital" were used to describe economic good or value, then the trustee would be required to conserve the economic value or relative wealth quantity of the trust.

These observations establish the difficulty of obtaining a sound concept from inspection of the act itself. We believe the older cases are helpful; that some of them are still good law; and that it is probable that where such decisions led to phraseology within the act, the judicially determined meanings inhere in the statute.

Broadly, what rules did these cases enunciate?

The first great question deals with: What sort of prudence? The answer begins with *Harvard vs. Amory* (9 Pick. 446; 461 Mass. 1930) where the court stated: "He (meaning the trustee) is to observe how men of prudence, discretion and intelligence manage their own affairs, not in regard to speculation, but in regard to permanent disposition of their funds, considering the probable income, as well as the probable safety of the capital to be invested." This sounds familiar, after examination of several prudent man statutes. Please note the phrases, "permanent disposition"; "manage their own affairs"; and "probable safety of capital." Note also the use of the words "funds" and "capital." Obviously, here is the origin of the statutes. Let us see what weight the courts have given it, bearing in mind the while that statutes are subject to judicial interpretation, and not losing sight of our question: What sort of prudence?

Speaking four years later we have a court modifying *Harvard vs. Amory*: ". . . the external standard of 'such care and skill as a man of ordinary prudence would exercise in dealing with his own property' is not the standard he would use . . . if he had only himself to consider . . . he must take no risks which would not be taken by an ordinarily prudent man who is trustee of another person's property." (Cooks Estate 171 Atl. 730; *Marshal vs. Frazier,* 80 P. 2d 42). The realities of human nature were recognized quickly; it was concluded that even prudent men take risks for themselves which should not be assumed for another.

We begin our answer to the question, What sort of prudence? by concluding that legal prudence differs from everyday prudence; and that it is a measuring device external to any particular case, as a ruler is external to the object it measures. Our prudent man is a synthetic individual of the law engaged in the management, not of his own affairs as stated in *Harvard vs. Amory* and in the statutes which lifted their phrasing from that case, but those of a dependent.

If the law is to hold us to a standard apart from ordinary horse sense, we must determine its other parts as well. The cases tell us that another basic element is the duty to use "reasonable care," seemingly innocent thought, but not so in fact. For instance, many intelligent individuals have done well in their investments utilizing the advice of brokers, financial services, knowledgeable friends or similar sources, relying wholly on the opinions obtained. Our fictional counterpart, the "ordinary prudent man" may not follow so comfortable a course. He must, himself, bring reasonable care to the task. He must, himself, investigate the safety and expectable income. He must weigh the background of the security. The effective opinion and the decisive conclusion must be his own. It is no defense to show that he acted on the advice of others, however highly qualified, if later events disclose that diligent personal investigation would have revealed a deficiency in the investment under the test of legal standards. It has been held that reliance on opinions from these sources was not defensible. Brokers, attorneys, friends (on whom the trustee was long accustomed to rely), bankers, financiers, business men, financial publications, and the general reputation or "blue chip" standing of a security or company, is held invalid. This is not to say that factual material from reputable sources may not be accepted, or that opinions may not be given consideration. It is to say that fact and opinion must be distinguished and that the trustee have sufficient data to produce his own opinion based on investigation of all material data. it is also to say that a working knowledge of the law of trust investment should be an elementary qualification of any Financial Analyst toiling for a corporate trustee.

Case law also demands "reasonable skill" of the fiduciary. Once more the law has its own vantage point. Once more the standard is external to the fact. A trustee, having suffered losses for his beneficiaries through failure to apply sound principles and techniques of analysis, would find no defense in this circumstance. If he does not have the required degree of skill, he must acquire it; for we have seen that he may not resort to outside sources, or refuse to act as a fiduciary.

The other side of the coin is different. If he has greater facilities and skill, he must apply them earnestly or be held derelict. Judges are prone to reason that corporate trustees should be held accountable for greater skill and knowledge than individual trustees despite, an old common law rule to the contrary. A Wisconsin cause (Estate of Ellis, 191 Wisconsin 23; 209 N. W. 945) ruled that, "when the trustee is a company organized for the purpose of caring for trust estates, which holds itself out as possessing a special skill in the performance of the duties of a trustee, and which makes a charge for its services" a unique importance attaches to the skill requirement. A later case emphasized the point by saying that corporate trustees are professionals having a large volume of business and expensive facilities.

Certain Advantages of a Bank

A New York court put it this way: "a bank has certain advantages. . . . It not only has its trust officer who is supposed to be more or less familiar with market prices of securities and whose business it is to be posted concerning market conditions, but over the trust officer are officials of the bank, men of affairs assumed to be chosen because of their business judgment." (*Matter of Baker,* 292 N. Y. Supp. 122).

One judge at least (*Matter of Balfe,* 280 N. Y. Supp. 128) observed that failure to sell securities could not be overlooked merely because they had fallen in value generally. By implication, corporate trustees would be expected to anticipate substantial market declines. He mitigated his remarks by adding that the trustee could not be deemed a guarantor of value. If the failure to sell was not accompanied by negligence, no surcharge could ensue. He should be able to show, however, that careful consideration was given to sale or retention and that the record show that he acted with prudence (minutes of investment committee). That the judicial tendency is toward a stricter view toward corporate trustees is witnessed by further decisions in New Jersey (*Liberty Title & Trust Company vs. Plews,* 142 N. J. Eq. 493; 60 Atl. 2d 630, 1948) and Oklahoma (*Finley vs. Exchange Trust Company,* 183 Oklahoma 167).

Although logic would lead one to conclude that reasonable skill were the same animal at all times and places, we find it is not one thing at all; one ruler measures a foot for an individual trustee; another and longer one a foot for a bank trust department. Mayhap this is proper. We do hold ourselves out to the public in a reassuring, confident way.

The prudent man of the jurists must also exhibit caution. In the eyes of the Bench, this virtue cannot be equated with care as perhaps would be done by the man in the street. Cases on caution go more to the question of motivation. Trustees may not seek speculative gain or place exceptional emphasis on prospective principal gain or growth in income. A flesh-and-blood prudent man may bring care and skill of the highest order to the selection of investments, yet be assuming risks which the law withholds from his legal twin. In *King vs. Talbot* (40 N. Y. 76) the court said: ". . . it does not follow . . . that trustees may do the same." The law of the husbandman applies again. Trustees' purposes shall be those appropriate to the prudent man morally and legally bound to provide for dependents. He must satisfy himself with results obtainable by reliance on probabilities developed from a preponderance of financial evidence. In the nature of things, this must be constituted of tangibles growing out of the company's record, position in its industry, etc., determined by procedures of measurement. Otherwise, how can he demonstrate his prudence, if challenged? There are overtones of interest to Financial Analysts here.

Thus far, we have treated only basic elements. We see them cropping out like geologic substrata in existing statutory and regulatory law. We assume that the newer law does not set aside the older case law, but crystallizes the major portion. Legal prudence still consists of care (knowledge, intelligence and diligence); skill (experience and facilities); and caution (proper motivation). Additionally, the law moves toward holding corporate trustees to distinctly higher standards in the consideration of these elements.

Yet withal, whether we have met the law's injunctions is one of fact as well as law, of particulars, not generalities. Since the courts seem to regard a fact finding in an adjudicated case as having converted that fact situation virtually into law, we may look to the facts of earlier cases with reason.

Spreading of Risk Necessary

We find great diversity but certain ideas seem generally accepted. For example, the spreading of risk among several investments is recognized as necessary. Professor Austin Wakeman Scott, a frequently cited authority expresses it thus: "The trustee . . . should not therefore invest more than a reasonable proportion of the trust estate in a single security or, it would seem, in a single type of security. This is a commonplace among experts in the art of making investments."

The extent of liability is not well defined, however, since many jurisdictions have not adjudicated the question. In others, its presentation to appellate courts has been obscured by collateral issues such as the measure of damages and whether failure of diversification was the proximate cause of loss. Recognition of the principle is present, despite the confusing factors.

General agreement also exists that trustees may not acquire investments on credit, carry on a business, buy securities of new or unproven enterprises, purchase realty or personalty for resale, invest in junior liens, or make unsecured loans.

Most of the cases mentioned were decided in the 1930's. The defendants were usually banks or business men who acted without intent to commit wrong. According to their experience they were doing workmanlike jobs for their clients. It was the extraordinary sequence of the years 1926-1930 which probed their weakness and brought them to the bar for judgment by principles and tests of which they had been ignorant, some of which, indeed, were wrought out of their own experiences.

We opine, therefore, that a normal investment environment produces little investment case law. It will be our adjustments to the unusual, unforeseeable events of the future which will call our prudence into question. How shall we fare under our prudent man statutes?

Oddly enough, we begin with another look at the past. Two cases will serve: the first, *Chemical Bank & Trust Company vs. Reynaud* (270 N. Y. Supp. 301, 1933) contained this language: "On the question whether an investment was a prudent one, the testimony of persons expert in financial affairs is admissible." The second, *Scoville vs. Brock* (81 Vermont 405) had this to say: "Evidence is admissible as to what insurance companies, trust companies and others purchase."

Seemingly, there is nothing new here. Such evidence was admissible then, and it is admissible now. What consequence? Simply this: This is the highway of development within the law. Here it may be altered without cases or statutes. It is also one of the places to look to estimate what the law may have come to be. Whatever we may do to protect against the onslaughts of the future, has origins here.

For a beginning, the Great Depression led to a more orderly, more detailed approach to security analysis. The Securities Exchange Commission forced issuers of securities to divulge data not theretofore obtainable. The breakup of utility holding companies focused attention on evaluation and corporate structure. Earning power, book values, depreciation practices, inventory, and property accounting received thorough scrutiny for the first time. Railroad reorganizations, corporate bond defaults, and other corporate disasters had similar results. Federal Estate Tax litigation brought inquiry into factors of value. The work was done, the data recorded, the principles tested by expert disputation. Today it is probable that competent counsel would be more capable of convincing a court that a corporate trustee had failed in the matter of prudence — provided he had actually been mistaken, ignorant, or used poor procedures— than in the 1930's, since many of the results of these studies have been widely accepted. The effective step in insuring legal prudence is to utilize analytical methods in the hands of qualified personnel.

Minimum Diversification Cited

Official acceptance of this line of thought may be shown by reference to Regulation F of the Board of Governors of the Federal Reserve System having to do with trust departments operated by national banks. As an example, no common trust fund subject to Board regulation, may invest more than 10% of its assets, at cost, in the securities of one company. Surely, there is no more clear cut statement of what constitutes minimum diversification.

The purchase of more than 5% of the outstanding shares of any corporation is also prohibited. Translation is easy: trust departments may not invest for purposes of control, nor to the extent that their holdings will carry any burden of participating in management— a crystallization of the case law rule against carrying on a business.

The Board was aware as well of the basic elements of diligence, skill, care and caution. Witness the imposition of these regulations concerning the exercise of investment discretion by trust departments: A committee of at least three *capable* and experienced officers is accorded this task. The Board thinks they should work at their job: "It is contemplated that there shall be a committee the members of which shall have a *continuity* of responsibility. . . ."

That thought, effort and application are expected, is underlined by provisions relating to alternates: "However, alternates appointed by the Board of Directors may serve in place of regular members . . . who are *unable to serve on account of vacations, illness, or other good and sufficient reasons if the minutes of the committee show the reason for the service of such alternate in place of the regular member.*" (Italics supplied).

The Board seeks to forestall any evasion of decision through ignorance or lassitude. It demands a definite committee act as a condition precedent to every purchase, sale or retention. Its disposition in the matters acted upon must be recorded (note the case alluded to earlier, Matter of Balfe). Inaction is not permitted and retention is accorded equal weight with purchase or sale. Portfolios must be reviewed periodically, and one of the three possible decisions arrived at for each asset. Each of the three decisions involves all of the elements of legal prudence. Investment via default is abhorrent.

On the question, Are corporate trustees to be held to higher standards?, Regulation F states: "Every such national bank shall conform to sound principles in the operation of its trust department." This is followed by a footnote to the effect that the Statement of Principles of Trust Institutions of the American Bankers Association is commended. The Board then caused the statement to be appended to Regulation F, thus lending an aspect of official injunction. A pertinent part of the Statement: "A trust institution should devote to its trust investments all the care and skill that it has or *can reasonably acquire.*" (Italics supplied). Again case law protrudes.

The Board of Governors was likewise cognizant perhaps of the cases dealing with caution, as we put it, motivation, wherein we learned that the courts were not impressed with attempts to obtain competitive advantage through spectacular results. At any rate, Regulation F prohibits advertising of investment results of common trust funds.

Know the 'Prudent Man' Law

In sum, the lineaments of case law are visible in our statutes and regulations. The major change is in the body of evidence available and the crystallization of principles. It is well, therefore, for corporate trustees to arrange their policies and procedures with an eye to the law of trust investment. The routine of investment should remove the hazard of culpable oversight, or mistake, just as operating and accounting practices in the commercial bank are designed to remove misgiving as to examination or audit. Financial Analysts are equipped to cope with this problem so long as one of the weapons in their arsenal is a cursory knowledge of "prudent man" law.

Earlier, we raised questions as to the meaning of the statutory phrase "permanent disposition of their funds," and the seemingly interchangeable use of the words

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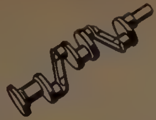

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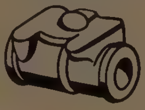

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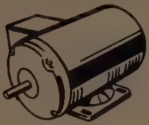

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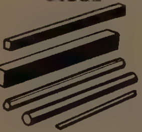

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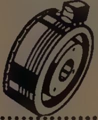

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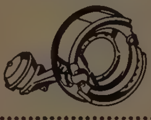

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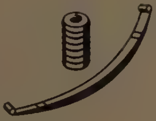

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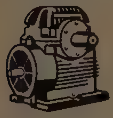

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"funds" and "capital." We do not wish to straddle those questions.

Vagueness as to the meaning of "permanent disposition" arose because jurists were not required at that moment to render their thinking explicit. All that was needed was to distinguish between ideas and objectives. On one side they grouped these activities:

Business operations—the buying and selling of goods or services with attendant operations.

Trading—the taking of positions in commodities or securities for ensuing sale or purchase at a profit on the capital employed plus any borrowed funds.

Speculation—the purchase or sale of securities based on an opinion that extraordinary events or development, not supported by a proven record of probability and conventional investment techniques, will occur.

To the judges, these were impermanent. Sale was contemplated in the act of purchase. Income was a secondary or non-existent consideration. They realized that success in these operations was reserved for the few possessing unique faculties and temperament, whereas the trustee, if he were to serve a social need, would be most frequently an individual of usual proportions. He might conceive himself a wizard of finance. In rare instances, he might be such. But it was felt that disaster for the many outweighed possible benefits to the few.

On the other side were investment operations thought to be of lasting nature:

Bond purchases—where the issuer exhibited financial strength over good times and bad.

Mortgages—where secured by first liens on real estate of much greater value and demonstrated responsibility of the borrower.

Stocks—where determined to be sound income producing enterprises through the application of accepted investment criteria.

Other investments subject to similar standards.

These were called permanent, where not acquired for trading purposes, control or transitory reasons. As to securities, this thought was based on the habits and experience of mankind. The great basic industries persist from one generation to another. Large, successful corporations have positions of leadership which are fixed by the convergence of many forces—the interests of management and millions of stockholders; the myriad suppliers from whom they buy; their millions of customers; their relationships with the financial community; and with governments, our own and others. These entities were deemed economis phenomena engrained in the mind and habit of economic man. Selections from among them may be made by the use of diligence and intelligence with no special faculties required. Clearly, the jurists were speaking, not so much of chronology as of character and a state of mind. The trustee is free to sell; in fact, he is under a duty to do so under the stimuli of sensible reasons.

A Case of Semantics

We come now to the terms "funds" and "capital." It is possible the judges were unaware of the fine differences in the meanings of these words. The character of their thought does not imply it. We believe these gentlemen pictured a trustee with cash or "funds" on hand for the making of investments, necessarily to be paid for with "funds." They then envisioned the trustee as having acquired the stock or bond. Instantly, the legal mind translated "funds" into "capital" which agrees nicely with the economic meaning of "wealth or anything of value used to produce more wealth." The concern for safety of capital in the cases and in the statutes is therefore logically, chronologically, and technically correct. The sequence of use of these words shows the idea of safety to be associated with wealth, not funds.

This outlook has been reinforced by events. At the end of World War II, trust literature was interlarded with concern as to whether trustees might buy common stocks, these being considered inflation hedges, but subject to fluctuations which could imperil safety of "funds." Some states had prohibitions against such investment, some limitations. This led many to fear the main body of the law might be influenced, thereby, even though no case law or other prohibition existed—and, in some instances, even though "prudent man statutes" had been enacted.

Any such hazard seems to have been removed by corporate trustees themselves. A check of institutional policies in 1958 showed portfolio percentages devoted to common stocks to vary from 35% to 65%. Perhaps the average moved up in 1959.

We have then a reasonable interpretation of court opinion, suggesting that wealth protective measures are in order. We have also the rule of evidence requiring admission of testimony as to the activities of trust institutions (such evidence would be overwhelming). If safety of wealth rather than a sum certain were ever in question, doubt has been removed. Courts will not require prudent men to lock their scales in the vault and stack their gold on the floor outside.

We have not treated analytical material here because that is a separate study. It is true, however, that analytical methods may be used to measure and clarify virtually every point of law mentioned. It is practicable for the corporate trustee, merely in the process of doing a good job, to evidence his prudence as he goes.

Our remarks end with a question and an observation:

The question: Why are corporate trustees so preoccupied with the law of trust investment? Are not security dealers, oil enterprises, and other businesses festooned with laws and regulations? Yet seldom do we find these other groups chronically concerned with things legal to the degree that is characteristic of trust officers. Perhaps the answer lies in the nature of their routine. Everything the trust officer does proceeds from some legal instrument: a will, a trust agreement, a divorce and property settlement, a court decree, a conveyance, an indenture.

Vast Sum of Knowledge Needed

There is a deep compatibility between trust men, the law and the legal fraternity. This is weighted further by a most practical consideration—trustee's fees are low. We cannot know exactly what annual compensation the average corporate trustee receives. Our guess would be about one half of one percent of fair market value per annum, or roughly equal to the wage of investment counseling firms or mutual fund management companies.

But before he turns to the investment problem he must have provided for intricate and voluminous accounting procedures encompassing all sorts of transactions in all kinds of properties. He must have equipped himself to deal with Federal estate taxes, state inheritance taxes and income taxes. He must have arranged to take cognizance of births, deaths, marriages, birthdays, and the onslaught of all forms of legal incompetence, and to follow intelligently the complexities of provisions in lengthly legal documents. He must have provided for personal understanding, sympathy and firmness in dealing with the lame, the halt, the blind, the unhappy, the alcoholic, the venal, the wise and the silly, the egocentric and the neurotic—along with the fine folk who comprise his main custom. Of a certainty, that portion of his fee, thereafter attributable to the investment chore, is not large. He would be something less than brilliant were he to risk the heavy hand of the law for so modest a prize.

The observation: Trust investment policy should not originate in apprehension. No court has ever held that the trustee must be right in all cases or in any particular instance. No court has ever held there is but one true answer to any investment problem and that the trustee must have it. The law demands only that the trustee be prudent within the rules of the game, so to speak. Within these rules he may be aggressive, defensive or neutral according to his nature, his judgment and, very importantly, the way he goes about it. He labors under no disability. The law would have him perform well, not timidly.

The trust business itself is founded on excellence. It would not exist without integrity and responsibility. Inefficiency would remove it from the banking scene. Trust investment demands the same standards. Indeed, the aim of excellent results in varied financial weather is the soundest, most efficient, least costly, and most defensible policy. We believe most trust institutions ascribe to it.

We have no real fear that anyone will accept what has been said here as gospel. Our intent has been one of exposition, to provide perspective, rather than minutae and exhaustiveness. One must resort to counsel for authoritative opinion on any set of particulars.

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Progress through Research

Investment Banking: Judge Medina in Retrospect

by Richard S. Nair

THIS YEAR MARKS the tenth anniversary of the opening of the historic trial of 17 investment banking firms in the so-called "Investment Bankers Case."

The famous opinion of Judge Harold R. Medina, in *United States of America vs. Henry S. Morgan, Harold Stanley, et al.,*[1] is still considered by many to be one of the most complete essays on investment banking and the securities business. It has been frequently recommended for people newly interested in the investment business as a clear statement of the history and operating intricacies of securities marketing and capital formation.

The background of this case, in brief, is that the Federal Government instituted an anti-trust action against 17 major investment banking firms, charging that they conspired to restrain and monopolize the securities business in the United States, particularly in regard to the underwriting of new issues and registered secondary offerings. In concluding (after more than six years of hearings and trials which produced approximately 100,000 pages of material), that no such conspiracy or agreement was ever made or participated in by the defendant firms, and dismissing the complaint, Judge Medina stated that Government counsel had been led astray "by a fundamental, factual misconception of the way investment bankers in general function and have functioned for many years."

It is for this reason that a considerable portion of the opinion is devoted to a study of the history and development of the investment banking business and an explanation of how the investment banker functions today, including the operations of the syndicate system. These portions, drawn from briefs filed by attorneys for several of the defendants, are of particular interest to members of the investment community.

HISTORY OF INVESTMENT BANKING

"It would be difficult to exaggerate the importance of investment banking to the national economy." From this forthright beginning, Judge Medina explains how adequate financing has been the life-blood of American industrial growth over the past 50 years. Today's methods of issuing and distributing securities had their beginnings in the latter part of the 19th century, with even the syndicate system in use as early as the 1890's. Thus, the investment banking business, "is the product of a gradual evolution to meet specific economic problems created by demands for capital, which arose as the result of the increasing industrialization of the country and the growth of a widely dispersed investor class. It was born in large part because of, and gradually adapted itself to, conditions and needs which are peculiar to the business of raising capital."

Prior to World War I there existed no network of security dealers throughout the United States such as there is today, and there were only about a half dozen investment banking houses with national distribution systems. Lacking such a network of securities dealers in the earlier period, underwriters sold as many securities as they could directly to individual investors with the result that the sale of security issues generally was not completed very rapidly. Such a method was, of course, wholly inadequate for later new issues followed each other in rapid succession, requiring larger capital resources on the part of the originating banker, and the purchase and banking groups for the purpose of carrying the securities.

For these reasons many of the issuing companies leaned heavily upon the sponsorship of the investment banking firms which sold their securities. This was the origin of partners or officers of investment banking firms serving as directors of such companies in order to keep an eye on management and protect the interests of investors against policies which might impair the value of those securities.

During this period it was common for the "originating banker" to purchase an entire issue directly from the issuer at a stated price and then immediately organize a larger group comprising a limited number of investment banking firms, sometimes known as a "purchase syndicate." The originating banker became manager of the purchase syndicate and would sell the securities which he had purchased from the issuer to this latter group at a step-up in price.

As business enterprises grew and the amounts of capital required increased, a second group, more numerous than the purchase syndicate, would be formed in order to spread still wider the risk involved in the purchase and sale of the securities. The purchase syndicate would then sell the securities it had purchased to this second larger group, known as a "banking syndicate," at another step-up in price. The originating banker and the other members of the purchase syndicate usually became members of the banking syndicate, with the originating banker as manager.

The transfer of securities to the purchase syndicate,

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[1] 118 F. Supp. 621, S. D. N. Y.

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and then to the banking syndicate, were practically simultaneous with the original purchase of securities from the issuer by the originating banker. In other words, during this period, there emerged the pattern whereby the investment banker performed a series of inter-related services, including the formulation of plans and methods to be pursued in raising money for particular issuers, the undertaking of the risk, and the distribution of the security issue as a whole.

Investment Banking Expands

The ensuing period between World War I and the Securities Act of 1933 witnessed an unprecedented expansion of industrial and business enterprises, an increase in number and geographical distribution of investors, and wider adoption of use of the corporate form. This was accompanied by greatly increased demand for investment capital, which resulted in the formation of additional investment banking firms. By this time all the larger banks were in the investment banking business, first for their own account and later indirectly through affiliated corporations formed for the purpose. The impact of the tremendous increase in both the size and number of security issues resulted in the number of underwriters in syndicates being increased, in order to spread the risk further and also to effect a wide-spread and rapid distribution of securities to the public.

As problems of distribution became more complicated, it was customary to form an additional group called a "selling group," which was much larger and more widely dispersed than the purchase and banking groups. Financial liability of the members of this latter group was restricted to selling or taking up the amount of securities for which each subscribed. Size and makeup of the selling syndicate varied according to the size of the security issue, the type and quality of the security, the size and nature of the class of investor to whom the distribution was to be made, and the ability of a dealer to distribute securities of a particular type.

As a result of Congressional investigations and hearings following 1929, certain statutes were enacted governing various activities of investment banking which, "effected changes of the most radical and pervasive character." These included the Banking Act of 1933 (whereby organizations which had previously engaged both in commercial banking on the one hand, and investment banking on the other, were required to elect which of these two functions they would pursue to the exclusion of the other); the Securities Act of 1933 and the Securities Exchange Act of 1934 (which established the SEC and enumerated certain powers of that body); the Public Utility Holding Company Act of 1935 (which affected certain securities of public utilities); and the Maloney Act of 1938 (which authorized the establishment of the National Association of Security Dealers). "The regulation of the securities business which followed with such salutary and beneficial results has been one of the significant developments of our time."

Once the effects of the "great depression" began to wear off, the needs of industry kept the demand for new capital at high levels. Not only did the size and number of new issues increase, but the low interest rates of the period resulted in a considerable number of refundings.

Mechanics of the Business Change

The withdrawal from the field of investment banking of the capital funds of the commercial banks and their affiliates, together with the civil liability imposed on each underwriter by the Securities Act of 1933 (equal to the entire amount of the issue), for any omission or misstatement of a material fact in the registration statement, resulted in a significant change in the mechanics of the business. Since the investment banking firms could participate in and manage underwritings only with their own money, the result was the purchase of securities issues by the various underwriters in severalty. The old banking and purchase syndicates of earlier days were completely abandoned, and the form in which underwriting transactions commonly have taken place from the passage of this legislation up to the present time is that of a purchaser or "underwriting agreement" between the issuer and the underwriters represented by the manager, and an "agreement among underwriters."

The entire transaction in substance is basically what it was previously. The manager, like the originating banker or manager in previous periods, handles the negotiations with the issuer and supervises the whole process of underwriting and distributing. The management fee of today is the equivalent of the fee paid by the members of the syndicate to the manager for his services in pre-1933 financing (the step-up). Dealer and group sales are still made, but the change in the character of the investing public, particularly the development of institutional investors on such a large scale, and the impact of the legislation previously mentioned, brought about some decrease in the use of selling group agreements.

In performing his function of making sales for the account of the underwriters, both to dealers and to institutions, the manager sells "out of the pot," whereby he simply sells "bonds" rather than allocating particular bonds to particular underwriters. During this same period, spreads have gradually become smaller and the maximum life of the syndicate has diminished, with price restrictions being removed earlier than the actual termination date of the syndicate. As a practical matter, they are generally terminated within a few days after the offering.

Two other changes have taken place during this latter period which pertain to public sealed bidding and private placements. Public sealed bidding transactions sharply increased due to the adoption of Rule U-50 by the SEC in 1941, concerning security transactions of public utilities and the 1944 ruling of the Interstate Commerce Commission regarding railroad debt issues. As a result of the registration provisions of the Securities Act of 1933, but also due in large measure to the increase in the number of institutional investors, private placements have likewise grown by leaps and bounds.

The fundamentals of investment banking are outlined by Judge Medina and prefaced by these remarks: "The problem before an issuer is in no real sense that of selling a commodity or a manufactured article. In essence, what the issuer wants is money and the problem is how and on what terms he can get it. Basically, it is simply a question of hiring the money." The possibilities open to the issuer are roughly divided into two groups, depending on whether or not he chooses to use any of the services of an investment banker.

The first, where the raising of a particular sum may be engineered and consummated by the executive or financial officers of an issuer, according to a plan originated and designed by them, includes: (1) a direct public offering by the issuer without underwriting by an investment banker; (2) a direct offering to existing stockholders without an investment banker; (3) a private placement without an investment banker; (4) a public sealed bidding transaction without the assistance of an investment banker; and (5) term bank loans, commercial mortgage loans, leasebacks, and equipment loans by commercial banks, life insurance companies, and other institutions.

In the second group, where the services of an investment banker are used, the available types of transactions include: (1) a negotiated underwritten public offering; (2) an underwritten public offering awarded on the basis of publicly invited sealed bids, with an investment banker having been retained on a fee basis to shape up the issue; (3) the so-called "stand-by" offering, a negotiated underwritten offering to existing security holders with the investment banker taking up the securities not subscribed for or exchanged; (4) an underwritten offering to existing stockholders awarded on the basis of publicly invited sealed bids with an investment banker having been retained on a fee basis to render professional assistance; (5) a non-underwritten offering to existing stockholders with an investment banker acting as agent on a negotiated basis; (6) a private placement with an investment banker acting as agent of the seller on a negotiated basis.

In addition, there are, of course, numerous variations of these types of transactions which may depend on the type of plan, the degree of risk, and problems of distribution. "The avenues of approach to the ultimate goal of hiring the money on the most advantageous terms, and in ways peculiarly suited to the requirements of the particular issuer at a given time and in a certain state of the general securities market, are legion.

Selecting the Approach

The issuing corporation may know pretty well in advance what method of financing it wants to use. It is more likely, however, that this is not determined until numerous contingencies have been explored, including questions concerning the capital structure of the issuer, intricate calculations of the effective cost of the money, plans for future financing, problems of operations of the business and other factors. Sometimes the management deems it important that there be a wide distribution of the securities, or that they be placed with investors in a particular geographical region, or among customer areas of the issuer. The issuing company may have sound reasons for not wanting to obtain the highest possible price for the issue, as when good will is involved or favorable treatment of existing stockholders is desired.

Once a given type of transaction has been tentatively selected, the issuer then must choose from a great number of possible features, each of which may have a significant bearing on the attainment of the desired result. Beyond the general breakdown of bonds, preferred stock or common stock, or some combination of these, there are the problems, for debt issues, of security or collateral, debentures or convertible debentures, serial issues, sinking fund provisions, various protective covenants, and coupon rates. These and many other factors may affect the rating, the flexibility necessary for operation of the business, and the general marketability of the issue. Other alternatives are available with equity issues, and all these details must be given careful consideration in the light of existing capital structure and future financial plans. Eventually, it is hoped, the proper combination of alternatives is evolved.

Details of the Issue

The investment banker is then faced with the preparation of the prospectus and registration statements with various supporting reports, compliance with the numerous rules and regulations of the SEC, ICC, or FPC, and the Blue Sky laws of numerous states. This summary of alternatives indicates "the milieu in which the investment banker demonstrates his skill, ingenuity, and resourcefulness, to the extent and to the extent only, that an issuer wishes to avail itself of his services."

It is, of course, the desire of the investment banker that the issuer will use the full range of services of the firm, including the design and preparation of the issue, the organization of the group to underwrite the risk, and the planning of the distribution. If he cannot wholly succeed, the investment banker may end up as co-manager, or as a participant in the group of underwriters; or he may earn a fee as agent for a private placement or other transaction. Or someone else may get the business!

Because the issue which eventuates is a nebulous thing, "the competition for business by investment bankers must start with an effort to establish or continue a relationship with the issuer." The issuing corporation, of course, is under no legal obligation to the investment banker until an underwriting agreement or agency contract or some such document has actually been signed. Although an investment banking house will usually work alone at this initial stage, there are times when several houses will work together in seeking the business, with understandings relative to the managership, or co-managership, of the issue and the amount of their underwriting participation.

Following the selection of an investment banking firm to shape up the issue and handle the financing, there ensues a period during which the financial analysts of the investment banker are working with the executive and financial officers of the issuer, studying the business from every angle, its future prospects, the character and efficiency of its operating policies, etc. Much of this information will usually end up in one form or another in the prospectus and registration statements. Sometimes independent engineers or consultants will be employed to make a survey of the business and/or the industry. Then, the investment banker submits a tentative plan of the financing and this is followed by one or more discussions among the parties, their attorneys and accountants.

Timing of the Issue: All Important

Eventually, the definitive plan will be agreed upon. It is always possible, however, that the entire format will be discarded in favor of a private placement, with or without the services of an investment banker. Occasionally, after many months of effort on the part of the investment banker, the issuer may decide to postpone raising of the money for a prolonged period.

The most important problem to be resolved during all of this period is the timing of the issue. "It is here, with his feel and judgment of the market, that the top-notch investment banker renders what is perhaps his most important service. The probable state of the general security market at any given future time is a most difficult thing to forecast. Only those with ripe trading experience and the finest kind of general background in financial affairs and practical economics can effectively render service of this character."

Finally, the issue is in its more or less finished form, the prospectus and registration statements are prepared for filing and decisions have been made relative to the cost of the money such as the coupon or dividend rate. Sinking fund, conversion rate, and other factors, where applicable, are determined subject to last minute considerations.

In the meantime the syndicate has been organized, the participation positions of those selected as underwriters have been determined, and the list of dealers for the selling group is assembled; or, if no selling group is to be used, plans for distribution by some other means have been formulated, and all of this has been proceeding usually in consultation with the issuer, who has the final say as to the participating underwriters. Plans for distribution of the issue require the most careful and expert consideration, as the credit of the issuing company may be seriously affected should the issue be unsuccessful.

Setting the Price

If this is to be a negotiated underwritten public offering, we have now arrived at what may be the parting of the ways between the corporate issuer and the investment banker; namely, negotiations relative to the public offering price, the spread, and the price to be paid to the issuer for the securities, all three of which are inextricably interrelated. The starting point is the determination of the price at which the issue is to be sold to the public, which must be the price at which the investment banker thinks the security can be put on the market with reasonable assurance of success. As previously stated, the issuer at times will not necessarily desire the public offering price to be placed at the highest figure attainable.

When agreement has been reached on the public offering price, the negotiations shift to the amount of the contemplated gross spread. This figure must include the compensation of all those who participate in the distribution of the issue; i.e., the manager, the underwriting participants, and the dealers who are to receive concessions and reallowances. The amount of the spread will be largely governed by the amount of work involved and the nature of the problems of distribution, which themselves depend upon the numerous factors pertaining to the nature and quality of the issuer and his business. Finally, the "pricing" of the issue is arrived at as a single determination of the public offering price, spread, and price to the issuer.

With public sealed bidding issues, the entire procedure is quite different. In this case the issue is designed and prepared by company management, with or without the services of an investment banker. Problems of distribution are unique, due in part to the usual sale in bulk to institutional investors, and the fact that, since no one knows in advance who the successful bidder will be, there is little time available for setting up elaborate distribution machinery. Here the issuer is not so much concerned with the public offering price as with receiving the highest bid for the issue. However, when the participating underwriters in the bidding account confer at their price meetings — before agreeing upon the amount of the bid to be submitted on their behalf by the manager—they first determine the price at which they think the entire issue can be sold to the public.

When the bids are opened, and without conferring with the issuer, the underwriters in the winning account promptly decide among themselves the public offering price, the method of sale, and the amount of any concessions or allowances. The difference between the bid price and the public offering price thus arrived at is the spread or anticipated gross compensation of the participants and the manager.

Judge Medina has, of course, only outlined the bare essentials here. "As a matter of fact, no two security issues present quite the same problems," he emphasizes. And of course the methods and practices of the various investment banking firms vary greatly. "The competitive pattern of the different firms will be found to depend largely on the background, the personnel and matters of policy peculiar to each firm."

OPERATION OF THE SYNDICATE SYSTEM

Under the syndicate system the underwriters are formed into a group, broad powers are delegated to the manager, and there are provisions for group and dealer

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sales, concessions, reallowances, etc. The history and development of the system, as set forth above, demonstrates that the modern syndicate in general use today by the investment banking industry is nothing more than the result of a gradual and normal evolution whereby an old form has been adapted to the needs of firms currently engaged in raising capital. It comprises the general methods used by the investment banking industry in making an orderly distribution or placement of an issue of securities on behalf of an issuing company. Here the underwriter and members of the selling group or selected dealers, "have a certain practical relationship with the issuer, and form a team and act together under the supervision of the manager. . . ." The syndicate system has no effect whatever on general market prices; rather, it is the general market prices of securities of comparable rating and quality which control the public offering price by the syndicate, as explained above.

Of great significance are the underlying characteristics of the relationship between the issuer, the investor, and the group of underwriters and dealers who together serve the issuer in making the single entire transaction possible by shaping up the issue, underwriting the risk, and planning and carrying out the distribution. "Purchases and sales, wholesaling and retailing, of commodities and manufactured products provide no parallel even remotely resembling the complicated and unitary group action necessary to the successful underwriting and distribution of a new and unseasoned security issue." It is here pointed out that the function of the investment banker in the capital funds market is *not* merely to buy and sell securities as a trader or wholesaler, but to furnish integrated investment banking services to the issuer who is seeking expert assistance in raising capital by floating a security issue.

Underwriting Competition Keen

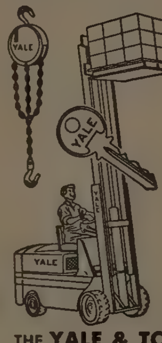
Competition for participation in the various underwritings, and to some extent for positions in the selling group, is often intense, as many of the investment banking houses have large selling organizations which need a constant and substantial flow of securities to sell. So-called "claims" or "rights" to underwriting or selling positions are either based upon work done in the past, in connection with the distribution of securities of a particular issuer, or are grounded upon the underwriting position of the claimant in some previous security issue by the same issuing company. There is generally a good deal of dissatisfaction with the participations which are finally allotted and practically every investment firm seems, at one time or another, to be using various arguments to get a better position than before—or at least a position which is no worse than before.

The "historical position" argument is based upon the fact that a participant in prior issues has already had experience in the distribution of the securities of that particular issuer, and thus must know a good deal about the company and the type of investor, individual or institutional, who would be in the market for securities of this character. In addition, the very fact of prior participation as an underwriter is some indication of sufficient underwriting strength to support the risk involved. However, neither the manager nor the issuer, to whom these claims are frequently addressed, are under any obligation to honor the claim. All that is required is that the claim be given consideration, which means a consideration of the whole picture on the merits, including present underwriting strength, past performance, improvement or deterioration in distribution facilities and ability, and so forth.

In conclusion, Judge Medina points out that most investment banking firms do business in much the same way, as occurs in any industry. Each, however, follows its own course, formulates its own policies, and competes for business in the manner deemed by it to be most effective, in view of its history and background, its standing in the industry, its capital, its own particular business affiliations and contacts, as well as the capacities of its officers or partners and its personnel as individual human beings, and its facilities for the distribution of securities.

Some specialize in debt issues, others in flotations of common stock, perhaps only of certain selected industries; certain ones depend especially upon underwriting participations; and others do not. "Obviously, each of them cannot compete for the management of every security issue. No one of them has enough trained men, or sufficient capital, even to compete for any great number of issues at the same time. To attempt to do so would result in complete failure."

In illustrating how the investment banker functions, Judge Medina discusses the interesting history of numerous pieces of underwriting business and is, in general, highly complimentary of the "serious and effective competitive effort" of the investment firms involved. In times such as these, when it appears fashionable in certain circles to belittle the free enterprise system, it is refreshing to note that investment banking, which has been the keystone of modern-day capitalism, remains a highly competitive business.



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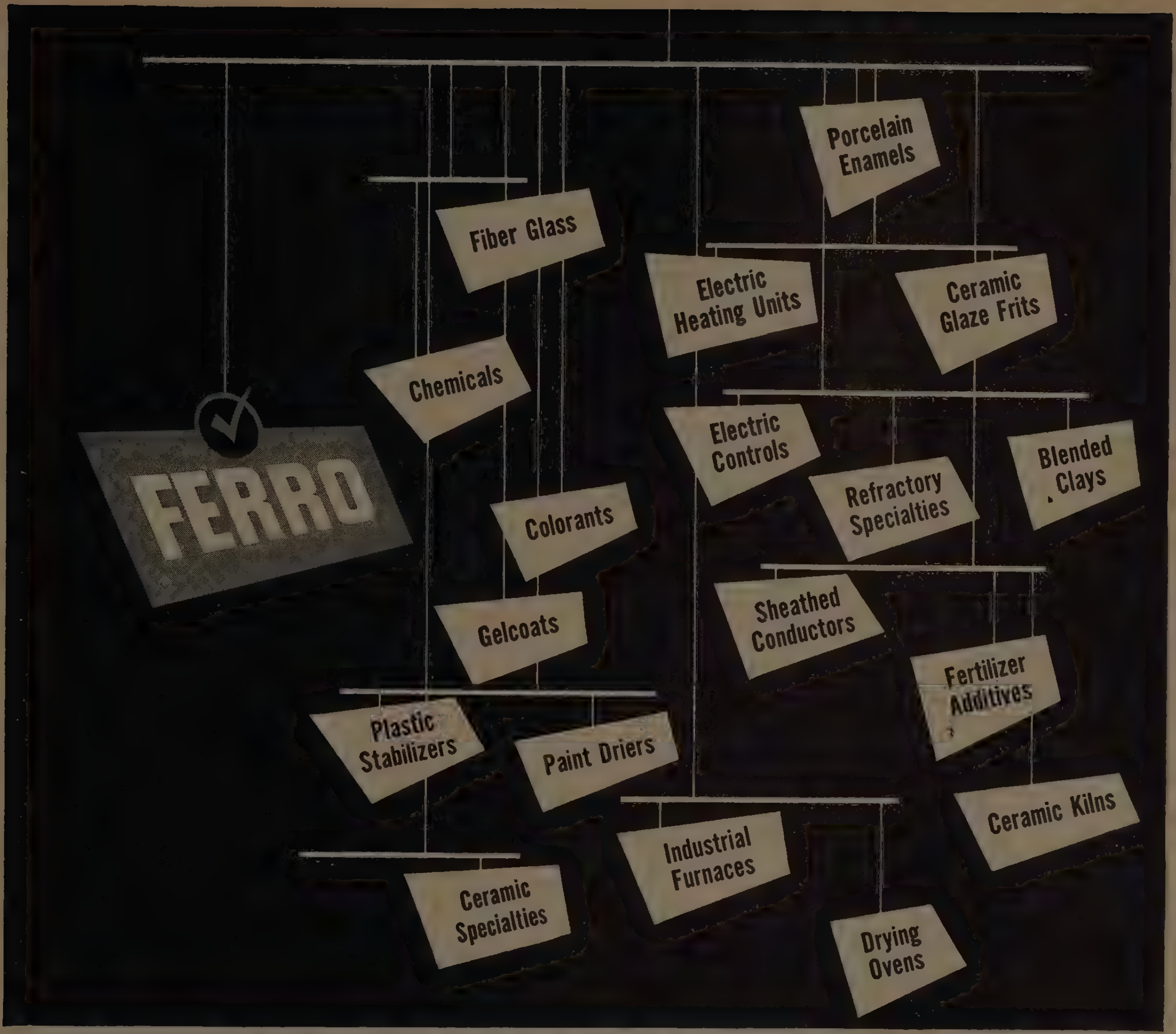

FIRST QUARTER COMPARATIVE CONSOLIDATED SALES AND NET INCOME

	Three Months Ended March 31	
	1960	1959
Consolidated Sales	$16,544,000	$14,980,000
Consolidated Income Before Taxes	$1,921,000	$1,627,000
Consolidated Income Taxes	998,000	842,000
Consolidated Net Income	$923,000	$785,000
Earnings Per Share on 784,645 Shares	$1.18	$1.00

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Price-Earnings Ratios

by S. Francis Nicholson

WITHIN THREE TO TEN YEARS, will the better price performance be in common stocks, with the current price earnings multiples of over 25 times, or in those under 12 times?

Answers to this question as posed to sophisticated Financial Analysts and business men, in the past year, have been nearly ten-to-one in favor of the high multiples. It is assumed they are bought for growth, and the low multiples only for income.

The results of certain studies, covering data for past years, would indicate a contrary conclusion; i.e., that on the average the purchase of stocks with low price-earnings multiples will result in greater appreciation in addition to the higher income provided.

Research Procedure

Study #1 covered 100 common stocks, predominantly industrial issues of trust investment quality and including many of the largest companies. Four railroad stocks were included, but no utilities, banks, finance or insurance. Prices and price-earnings ratios were ascertained for each stock for 1939, 1944, 1949, 1954 and 1959; also, the percentage of price appreciation was computed from each of these dates to subsequent dates as follows:

1939 to 1944
1939 to 1949
1939 to 1954
1939 to 1959
1944 to 1949
1944 to 1954
1944 to 1959
1949 to 1954
1949 to 1959
1954 to 1959
1957 to 1959

Study #2 covered 29 chemical common stocks with prices and price-earnings ratios for the years 1937 to 1954, inclusive, except that data for seven of these companies was not available for all of the 18 years in this period. The percentage of price appreciation was computed for each stock as follows: 3-year periods following each of the years 1937-1954, inclusive; 6-year periods following each of the years 1937-1950, inclusive; and 10-year periods following each of the years 1937-1947, inclusive.

Source of Data

In each study, prices and price-earnings ratios were the mean figures for each year as computed by Studley, Shupert & Company in its statistical tables, except that in 1959, August 31st prices were used. The Studley, Shupert tables adjust for stock dividends, splits and exchanges, except that those under 10% are delayed in their adjustment until they have cumulatively reached 10%. With these adjustments, it is believed that the data is substantially comparable for all the periods in these studies.

Observations

(1) The 20 lowest multiples showed more appreciation in all 11 periods than the 20 highest multiples.

(2) The 40 lowest multiples in all 11 periods showed more appreciation than the 40 highest multiples. On the average, the latter appreciation figures were only 58% of the former.

(3) Individual stocks which appreciated during

RESULTS OF STUDY #1: 100 STOCKS

Price appreciation in each period according to price-earnings groups:

Price-earnings ratios at beginning of each period	1939 1944 %	1939 1949 %	1939 1954 %	1939 1959 %	1944 1949 %	1944 1954 %	1944 1959 %	1949 1954 %	1949 1959 %	1954 1959 %	1957 1959 %
Lowest 20 P-E ratios	48	102	444	1,175	56	307	691	188	470	123	56
Next lowest 20 "	16	76	237	524	37	238	540	91	273	95	42
Middle 20 P-E ratios	— 5	25	114	329	36	152	570	122	328	88	40
Next Highest 20 "	— 4	18	140	378	26	100	305	84	291	79	26
Highest 20 P-E ratios	5	43	206	542	33	156	508	51	273	115	39
Lowest 40 P-E ratios	32	89	340	850	46	272	615	140	372	109	49
Middle 20 "	— 5	25	114	329	36	152	570	122	328	88	40
Highest 40 "	1	29	169	457	30	128	406	68	282	97	33
Average for 100 stocks	12	53	228	589	38	191	523	107	327	100	40

(An inconsequential adjustment in the foregoing table was made in the periods beginning 1939, to omit four companies which had deficits or only nominal earnings.)

S. Francis Nicholson, vice president of Provident Tradesmens Bank and Trust Co., Philadelphia, is a graduate of Earlham College and the Harvard Graduate School of Business Administration. He is a member of the Financial Analysts of Philadelphia and was president of that organization 1958-59.

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these periods more than the average for all stocks, predominantly occurred in the low multiple groups and were fewest in the high multiple groups.

(4) Individual stocks which showed losses during these periods or which showed relatively little appreciation predominantly occurred in the high multiple groups.

(5) The middle groups of price-earnings ratios showed less appreciation than the low multiples, but in a number of instances also showed less appreciation than the highest multiples. Generally, the 20 highest multiples showed more appreciation than the 20 next highest.

(6) If an investor bought the 20 lowest multiples in 1939, changed in 1944 to the 20 lowest in that year, and again in 1949, and 1954, his investment would have appreciated in 1959 to 14.7 times his original investment. Similar procedure with the 20 highest multiples in these years would have brought the value to 4.5 times the original investment. (These figures are of course not adjusted for broker commissions and taxes.)

(7) A random cross section of 33 out of the 100 stocks was tested as to the record from 1929 to 1939, a period of great change and general decline in values. The 17 lowest multiples declined 22% and the 16 highest multiples declined an average of 24%; but without the inclusion of Monsanto in the latter group, the decline would have been 40%.

RESULTS OF STUDY #2: 29 CHEMICAL STOCKS

More than 1,100 price comparisons were made for these stocks from various years and for various periods as indicated in the explanation of method earlier in this report. The results are averaged and summarized as follows:

At the beginning of each 3, 6, or 10 year period	3 Yr. Average Appreciation From Each Year 1937-1954 Inclusive	6 Yr. Average Appreciation From Each Year 1937-1951 Inclusive	10 Yr. Average Appreciation From Each Year 1937-1947 Inclusive
5 stocks with highest P/E ratios	21%	50%	116%
5 stocks with lowest P/E ratios	56%	101%	191%
Highest 50% P/E ratios	24%	54%	109%
Lowest 50% P/E ratios	40%	89%	153%
Total number of years covered	18	15	11
Number of years in which average appreciation was higher			
in the highest 50% ratios	2	3	3
in the lowest 50% ratios	16	12	8

Observations

(1) The 50% lowest price earnings ratios averaged over 50% more appreciation than the 50% highest

ratios. The five stocks each year with the lowest ratios averaged twice as much appreciation as the five stocks with the highest ratios.

(2) The lowest multiples produced the most appreciation in over four-fifths of the periods covered by the study.

(3) A comparison of all cases where the price-earnings ratio was 22 times or more, with all cases where it was under 10 times, shows the following results:

Comparison of very high and very low ratios.
(Irrespective of which years they occurred.)

	3 Years	6 Years	10 Years
Number of individual calculations in this study	473	386	272
Number of cases with multiples of 22 times or more	60	47	46
Average Appreciation	17%	54%	110%
Number of cases with multiples under 10 times	108	97	50
Average Appreciation	67%	123%	176%

(4) Individual cases in which there was substantial appreciation (over 25% in 3 years, 50% in 6 years or 100% in 10 years) were about 30% more frequent in the 50% low price-earnings multiples; and depreciation occurred in over 30% more cases in the high multiple group than in the low group.

(5) A comparison of all cases where the appreciation exceeded certain substantial percentages for the various periods with those which show depreciation or very little appreciation, shows that the average of price-earnings multiples of the successful cases was about 12 times and of the unsuccessful cases was about 17 times.

(6) While no precise calculations were made of differences in dividend income, it would appear that the various calculations of better performance of the low multiple stocks would be even more favorable for those stocks if allowance were made for 1% to 2% more dividends per year.

General Conclusions

These studies seem to confirm that present or immediately prospective earnings are a major factor in the outlook for market prices of common stocks. Many investors have apparently underestimated the importance of reasonable price-earnings relationships.

High price-earnings multiples typically reflect investor satisfaction with companies of high quality, or with those which have experienced several years of expansion and rising earnings. In such cases, prices have often risen faster than earnings. A resultant increase in price-earnings ratios may be justified in individual instances, but under the impact of public approval or even glamour, it often runs to extremes. When this occurs, upward price trends are eventually subject to slow-down or reversal. High multiple stocks then develop trends which *on the average* compare unfavorably with low multiple stocks which have not yet been bid up to vulnerable price levels.

Some growth stocks appear to be exceptions, at least for temporary periods, and in individual instances price advances have continued spectacularly. These exceptions may explain why investors do not look on high price-earnings ratios as danger signals, but, on the contrary, regard them as evidence of potential growth and of further price appreciation to be expected. The results of our studies cast doubt on the validity of such reasoning and point up the relative risks of buying stocks after prices have advanced beyond conservative price-earnings relationships.

(Author's note: It is believed that these studies are sufficiently broad to permit the law of averages to be demonstrated effectively in the results. There is much room, however, for other studies of price-earnings relationships and their influence on price trends. It is recognized that such further data may either modify or corroborate the general conclusions reached above.)

Speaking about the profession of financial security analysis, R. Carl Chandler, board chairman of Standard Packaging Corp., says: "I know of no other profession that brings one into such close contact with the great variety of industries, financial accomplishments, multitude of ideas and dreams, management attitudes and business personalities as you are privileged to study and evaluate."

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MARTIN

This is one of a series of ads which Gulf has addressed to those who write and edit the news. It is reprinted here as a service of information.

GULF PRESS CONFERENCE 8

A service of Gulf Oil Corporation in the cause of creating—through the facts as we see them —a fuller understanding of the oil industry.

Clean Air: Whose Responsibility?

There are so many things that make life simpler for us these days. Yet some of these very conveniences produce undesirable by-products in the form of industrial and automotive exhaust. How can we dispose of these wastes without contaminating the air we breathe? That is the problem of air pollution control. Science and good judgment have given us some answers. As industry and individuals, how far do we still have to go?

Q. Why bring in the individual? Isn't he victim, not culprit, in the smog problem?

A. To a degree he is both. Take any smoking home furnace, trash pile, or car engine in need of tuning. Multiply the volume of improperly burned fumes by the number of such offenders and you have trouble-sources that offset any gains made by industry.

Q. What is industry doing on its part to keep the air clean?

A. Industry is spending hundreds of millions a year to control and eliminate contaminants formerly discharged into the air. As for Oil, the American Petroleum Institute has spent—in research, alone—$1.3 million on 14 major projects. And in a recent three-year period individual oil companies have put in more than $66 million worth of equipment to avoid polluting air in communities where they operate. These companies spend $1 million a year more in continuing research. As you see, clean air costs money.

Q. Can you point to practical results from these expenditures?

A. Yes, and they often extend well beyond clean air. Take just one factor in air pollution: the sulfur compounds in a plume of smoke. In Los Angeles, where the smog problem is most acute, refiners have spent $6 million to eliminate sulfur from refinery exhaust. Six hundred tons a day of these waste gases are now converted to useful by-products. So clean air can be good business another way. It can sometimes pay its own way.

Q. Should control measures have to pay their own way?

A. Not at all. Most control practices are extra expense which industry undertakes in living up to its community responsibility. Let's list what refiners have done to conserve clean air. *Odor elimination:* they've exploded the notion that refineries have to smell bad. *Smoke control:* through reduction of emergency flaring to absolute minimum and smokeless burning, they've eliminated the refinery as a significant source of trouble. *Evaporation control:* they've cut escape of contaminants from that source by 70%.

Q. You suggested the motorist can help control exhaust from his own car. How much pollution does car exhaust account for?

A. In New York City, automobiles pump out 10,000 gallons of unburned gasoline into the air every hour. In Los Angeles, they pour about 2,450 tons of smog-producing materials into the air every day. It is now agreed by competent scientists that automobile exhaust is the principal source of air pollution in Los Angeles.

Q. What about gasoline that's fully burned? How much pollution does it account for?

A. If gasoline could be fully burned in an automobile engine, no serious contaminants would be produced. But that engine—especially when in poor repair —emits some partially burned materials. In the presence of ordinary sunlight these emissions undergo the chemical change that makes smog.

Q. Can't the oil industry produce a gasoline without smog-causing materials?

A. Nothing would please the oil industry more than to develop a truly "smogless gasoline." But despite much costly research, there isn't such a gasoline known today nor is it considered likely that one will be developed in the future.

Q. How is the car maker living up to the responsibility for keeping the air clean?

A. Manufacturers are making a practical start at solving the problem in their 1961 models. They have already spent $6 million on basically two approaches. One would send pollutants that now escape from the carburetor and crankcase back into the engine for burning. The other would clean up partially burned gases that get as far as the tailpipe. The auto industry agrees to share patents on whatever device proves most efficient.

Q. What can the individual car owner do to cut down on smog now?

A. He must make sure his engine is tuned. It will cost him about $25 to $30 a year. Yes, smog control costs money. But it is estimated a well-maintained car puts 60% less pollution into the air (and uses 15% to 20% less gasoline) than a car with dirty plugs, a too-rich fuel mixture, improper timing and faulty rings. Such cars would reduce smog enough to satisfy control officials of almost any city.

Q. Are you saying different cities have different control requirements?

A. Yes. Cities have different atmospheric conditions affecting smog formation. In Los Angeles, ventilation is poor, and the abundance of sunlight plays havoc, as we said, with exhausts. There, almost total control is required. But other cities have better natural dispersal of exhausts. Controls satisfactory to one community should not be adopted as the "easy way out" of smog contamination elsewhere.

Q. Isn't it true that this contamination may become a serious health hazard if allowed to get worse?

A. We can't ignore any irritant as a health hazard. Public health officials and industry doctors are accumulating considerable data, but not sufficient to relate air pollution to disease. That is not to say we have reason for complacency. It is up to all of us to remove smog as a possible threat to health.

We welcome further questions and comment.
Please address them to Gulf Oil Corp.,
Room 1300, Gulf Bldg., Pittsburgh 30, Pa.

United States and Canadian Stock Markets

by Bruce Whitestone

THE FOLLOWING STUDY briefly reviews the growth of the United States and Canadian economies, as well as two developing trends in North America as they are affecting both countries. This information is then analyzed in conjunction with a comparative valuation of the two stock markets.

Canada's industrial development is strongly influenced by events and conditions in the United States, and our economy is a small-scale reflection of many, but not all, of the influences at work there.

Thus it is logical that the economic forecasts for Canada for 1960, based on current estimates, are very similar to those forecast for the United States.

Although the Canadian stock market recently moved down in sympathy with New York, the decline was not as severe.

Canadian securities appear more reasonably based in relation to earnings than those of the U. S. even though the Canadian economy is growing more rapidly. This trend can be illustrated by the statistical comparison in *Table I* of some significant economic indicators of the two countries over the last three years.

Not only can it be said that Canadian industrial stocks are better value on the whole than those of the U. S. but, also, certain Canadian industry groups appear cheaper than their American counterparts. I have compared the price/earnings ratios (based on either actual or estimated 1959 earnings) of leading U. S. and Canadian companies by industry and a summary of the results are shown in *Table II*.

It can be seen from *Table II* that most major industry groups in Canada appear more attractively priced than in the U. S. with the exception of Petroleum, Food chains and Business Forms.

The most significant differences are between the Department Store, Construction, Automobile and Meat Packing groups—all these appearing priced well below their U. S. counterparts in spite of their superior growth record.

The bank stocks were not included in this study because the differences between banking systems of the two countries does not allow comparison.

A further substantiation of the above facts can be seen by comparing U. S. and Canadian earnings over a five year period with stock prices in the two countries.

	1955	1959	Percent Change
Dow Jones Industrial Index	438	626	+43.1
—Average Earnings	$35.78	$35.49	— 0.7
Toronto Stock Exchange Index	415.64	492.75	+16.5
—Average Earnings	$ 2.57	$ 2.78	+ 8.0

As can be seen from the above table, between 1955 and 1959, the Dow Jones Industrial Index advanced 43.1%, while the average earnings of the stocks which comprise the Index actually declined by 0.7%. On the other hand, the Toronto Industrial Index rose 16.5%,

Table I
(In billions of dollars)

	1957	1958	% Change	1959	% Change	1957-59 % Change
G. N. P.						
U. S.	442.6	441.7	— 0.2	480e	+ 8.67	+ 8.45
Canada	31.8	32.5	+ 2.2	34.8e	+ 7.08	+ 9.43
Industrial Production						
U. S.	100	99	— 1	105	+ 6.07	+ 5.0
Canada	155.4	152.6	— 1.8	165	+ 8.13	+ 6.18
Corporate Profits, Pre Tax						
U. S.	43.3	37.1	—14.3	47.2e	+27.22	+ 9
Canada	3.005	2.904	— 3.36	3.398e	+17.01	+13.1
Personal Income						
U. S.	307.9	316.5	+ 2.79	332.6	+ 5.08	+ 8.02
Canada	21.107	22.600	+ 7.07	23.934e	+ 5.88	+13.38
Farm Income (cash)						
U. S.	34.4	38.3	+11.3	37e	— 3.40	+ 7.56
Canada	2.575	2.786	+ 8.2	2.776	— 0.36	+ 7.81
Cost of Living						
U. S.	120.2	123.5	+ 2.74	124.5	+ 0.81	+ 3.57
Canada	121.9	125.1	+ 2.63	126.4	+ 1.03	+ 3.69

Bruce Whitestone is director of research at Collier, Norris & Quinlan, Montreal. Prior to this he was associated with F. Eberstadt & Co., J. P. Morgan, Sheilds & Co., and W. E. Burnet. He is a graduate of Yale University.

Table II

Average Group P/E Ratio

Industry	U. S.	Canada	Deviation
Department Store	18.7	13.6	—5.1
Construction	14.7	11.0	—3.7
Automotive	13.0	9.5	—3.5
Meat Packing	14.0	11.4	—2.6
Chemical	23.3	21.0	—2.3
Public Utilities	18.3	16.7	—1.6
Finance	11.1	9.8	—1.3
Tobacco	12.0	10.7	—1.3
Distilling	12.4	11.5	—0.9
*Steel	11.3	11.0	—0.3
Petroleum	18.8	21.2	+2.4
Food Chains	15.1	17.3	+2.2
Business Forms	20.8	21.9	+1.1

*Excluding effects of steel strike.

while earnings gained 8%. Furthermore, at the time this is written, the Toronto list is selling at 15.3 times current earnings, and the U. S. counterpart at approximately 18 times.

This comparison can be validated by using any base years since the end of the war. For example, earnings on the Canadian list from 1950-59 increased 28.1%, more than the U. S. counterpart, but the Canadian market gained only 112%, versus U. S. gain of 190%.

Table III

Year	U. S. Mfg. Cos. Profits as % of Sales	Cdn. Mfg. Cos. Profits as % of Sales
1949	5.8%	5.8%
1950	7.0	7.1
1951	5.5	5.8
1952	4.3	5.0
1953	4.3	5.2
1954	4.5	5.2
1955	5.4	5.9
1956	5.2	5.8
1957	4.8	5.2
1958	4.0	4.6

The efficiency of Canadian manufacturing companies also compares more favorable with the U. S. than is generally realized. In fact, profit margins in the two countries are almost identical. Consideration of the smaller production units, and the impact of imported items and diffused population, would suggest lower profit margins in Canada; but this is not the case. A statistical comparison of profit margins in the two countries is set forth in *Table III.*

Foreign trade is of great importance to Canada, of far greater significance than for the United States. The Canadian trade deficit is a matter of much discussion. By analyzing the results for the last 10 years, as illustrated in *Table IV,* it becomes apparent that foreign competition is increasing more for the U. S. than for Canada, while Canadian exports are growing more rapidly.

Table IV

Year	U.S.A. Exports and Re-exports	Canadian Exports and Re-exports	U.S.A. General Imports	Canadian Imports
	(millions of dollars)			
1949	12,005	3,022	6,633	2,761
1950	10,278	3,157	8,854	3,174
1951	15,025	3,963	10,960	4,085
1952	15,111	4,356	10,711	4,031
1953	15,698	4,172	10,975	4,383
1954	15,076	3,946	10,207	4,093
1955	15,518	4,350	11,384	4,712
1956	18,987	4,863	12,590	5,705
1957	20,810	4,934	12,966	5,623
1958	17,876	4,928	12,846	5,192
1959	17,575	5,180	15,512	5,655
% Increase 1949-59	45.8	71.8	134	105

Over the last decade, in other words, our exports rose 26% more than those of the United States, and our imports grew 29% less than those of the United States —in spite of our great need for capital equipment.

In conclusion, it appears that the Canadian market would offer good value compared to the U. S. market.

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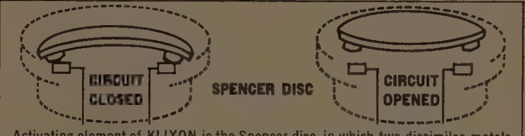

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Stock Values and Stock Prices

by Nicholas Molodovsky

PART TWO

PART ONE completed the presentation of the theoretical bases of our method of valuation. Its core is a capitalization of earnings freed from any feedback of price. Price-earnings ratios are sidestepped; the capitalizers are derived from the levels of earnings trend lines and the rates of their growth.

Earnings Growth and Investment Values

The impact of earnings growth on investment value may be illustrated by two stocks with identical current earnings but different rates of estimated future earnings growth.

Let us assume that each of these two stocks will earn this year $3.75 per share.

Stock #1 is a dramatic growth stock. As the novelists say, it is a figment of our imagination and is not intended to represent any stock living or dead. Its resemblance to *Polaroid* is purely coincidental.

For the last decade or so, this stock's per share earnings have been growing at an annual rate of about 45%. There seems to be no reason to doubt that growth for this remarkable company will continue without abatement in the visible future. Prospects are bright. Within two years it is expected to introduce for its basic product a new low-priced model already designed but not yet tooled; and it will bring out a new line to which consumers have been looking forward with great anticipation. Both will be financed from internal sources. Once the two new developments hit the market, the company's annual rate of earnings growth could conceivably exceed for a while 100%. And other innovations are in the works.

Despite such great expectations, let us project the stock's per share earnings growth at only a 40% annual rate for just five more years. And let us chop off ten full percentage points every five years from its future earnings growth rate. This will reduce this rate to 10% by 1975. From 1980 onwards we shall assume our ignorance rate of 2½%.

Stock #1 is currently selling at 250 a share. Looking back to 1949, its per share earnings in that year amounted to 18 cents. They grew to $2.78 by 1959. With the estimated 1960 earnings of $3.75, the current year's point on the earnings trend line is $4.00. It is shown in Stock #1 table together with other data for subsequent years. The methods for computing the capitalizers were described in PART I of this study as well as in *Valuation of Common Stocks*.

Discounting future normal theoretical dividends representative of the earnings trend points, projected on Stock #1 table, at our accepted general rate of 7½%, we arrive at a 1960 investment value of 1350.

As applied to 1959 per share earnings of $2.78, a price-earnings ratio of 485 would be merely in line with value. Based on the $3.75 estimate for 1960, the stock's investment value would not be exceeded by paying now 360 times such estimated earnings. Since Stock #1 is currently selling at 250, it is 80% underpriced and is dirt cheap. The validity of this appraisal is of course subject to the degree of confidence in the projected rates of growth.

The 1960 earnings of our already billed Stock #2 are also estimated at $3.75 a share. But unlike those of Stock #1, we assume them to grow at a uniform 3% annual rate for the next 20 years. Beyond 1980 we shall extend them by our 2½% rate of ignorance. Stock #2 table summarizes these conditions and their effects.

The investment values for 1960 and later years of Stock #2 have little in common with those characterizing Stock #1. With Stock #2 selling at 50, its price-

STOCK #1
Current Price: 250

	1960	1965	1970	1980
Estimated Level of Earnings Trend	$4.00	$21.50	$80.00	$312.00
Projected Growth of Earnings Trend	— 40% —	— 30% —	— 15% —	— 2½% —
Capitalizer Applicable to Earnings Trend	337.5	89.3	33.2	13.5
Investment Value	1350	1920	2660	4210

P/E Ratio = 66.7 Est. 1960 Earnings = $3.75 V/E Ratio = 360

Nicholas Molodovsky holds a master's degree in economics from Harvard University and a doctor's degree from the University of Paris. He has been active for more than 25 years in investment management and financial analysis in the United States and Europe. He is the author of many publications in economics and finance, an Associate Editor of "The Financial Analysts Journal" and a correspondent of "La Vie Francaise" of Paris.

* * * * *

The author is greatly beholden to Catherine R. May for a long collaboration in his theoretical and practical work.

STOCK #2

Current Price: 50

	1960	1965	1970	1980
Estimated Level of Earnings Trend	$3.50	$4.05	$4.70	$6.30
Projected Growth of Earnings Trend	3%			2½%
Capitalizer Applicable to Earnings Trend	14.3	14.1	14.0	13.5
Investment Value	50	57	66	85

P/E Ratio = 13.3 Est. 1960 Earnings = $3.75 V/E Ratio = 13.3

to-earnings ratio of 13.3, based on its 1960 estimated earnings, bears little resemblance to the 66.7 ratio of Stock #1. Despite this enormous difference, it is the stock carrying the 66.7 price-earnings ratio which happens to be underpriced by 80%, while the current price of the stock with the drastically lower ratio of 13.3 is in line with value.

Barter Terms

Price is what we wish to measure to form a judgment whether it is high or low. To do this we need a standard. Yet most of so-called valuations represent mere comparative pricing.

It is of the essence of a method of capitalization based on discounted present worth that—if it steers clear of price—it can create an independent standard of value. Price may then be measured without shortcircuiting the current of logic. And when a technique is devised by means of which discounted present worth can be expressed in terms of a single variable—such as earnings—the values of all stocks find themselves reduced to the same common denominator. They thus become measurable in real barter terms and may be compared—each and all—with one another.

By relating the capitalizers to the rates of earnings growth, the perennial question of investors of how much they can afford to pay for growth stocks is answered in direct quantitative terms. Moreover, since time is one of the aspects of growth, comparative values can be projected into the future. Stocks which are cheap today are not necessarily the best buys for long term investors. Their rates of earnings growth may be slowing down while others are becoming more dynamic. The life expectancies of investors vary from a few years to the end of time of our economic system. The investment planning of "immortal" institutions cannot be the same as for physical persons, particularly when their age ranks high on actuarial tables. It is important for investors to be able to set up comparative valuation schedules with different timing objectives.

Valuation of DJIA Stocks

An illustration limited to two equities does not offer sufficient scope for setting up an instructive valuation schedule. It was used to throw more light on the functioning of the mechanism by selecting strongly contrasting cases. But the 30 leading stocks composing the Dow-Jones Industrial Average provide ample statistical variety for a comprehensive tabulation.

To begin with a pictorial presentation, *Figures I* to *VI* trace changes in annual earnings and their respective trend lines of each of the 30 DJIA stocks since 1933. The stocks are arranged in approximate alphabetical order modified somewhat by the editorial need of fitting into each chart five different curves. The same requirement prevented grouping the stocks by industries; we could not separate the 30 stocks into six sufficiently clear-cut classifications.

The visual information provided by *Figures I - VI* is also partially recorded by some of the data in *Table I* which, in addition, contains some other actual and estimated earnings statistics.

The table's last column indicates the approximate average annual growth rate of the earnings trend line during 1960-70 implied by each stock's closing price of June 1, 1960. This rate may be confronted with that shown in the preceding column which lists projections for the same period made by experienced security analysts. In both cases, growth after 1970 is extended by our accepted ignorance rate of 2½%.

Caveat Emptor

The very rough outlines of *Table I* should make it unnecessary to caution against an uncritical acceptance of its projected growth rates of the earnings trend lines. While the figures were not pulled out of a hat, but are the result of careful thinking, they represent an oversimplification. For the sake of uniformity, the growth rates shown in the last two columns are all arbitrarily compressed into ten-year periods.

The objective of this paper is to offer a bird's eye view of our method's practical applications. Our study appraising the common stock of General Motors (*The Analysts Journal*, May, 1959) shows the amount of work required for individual valuations. And earnings projections of different stocks will often need multiple time-segments each endowed with its own particular rate of growth—such as those in *Figures I - VI*. Standardized estimates can serve illustrative purposes only.

Perhaps the most questionable feature of the simplified comparisons embodied in *Table I* is the abrupt drop, in 1970, for each of the thirty stocks without exception, to the 2½% ignorance rate regardless of their respective growths projected to this common ter-

FIGURE I

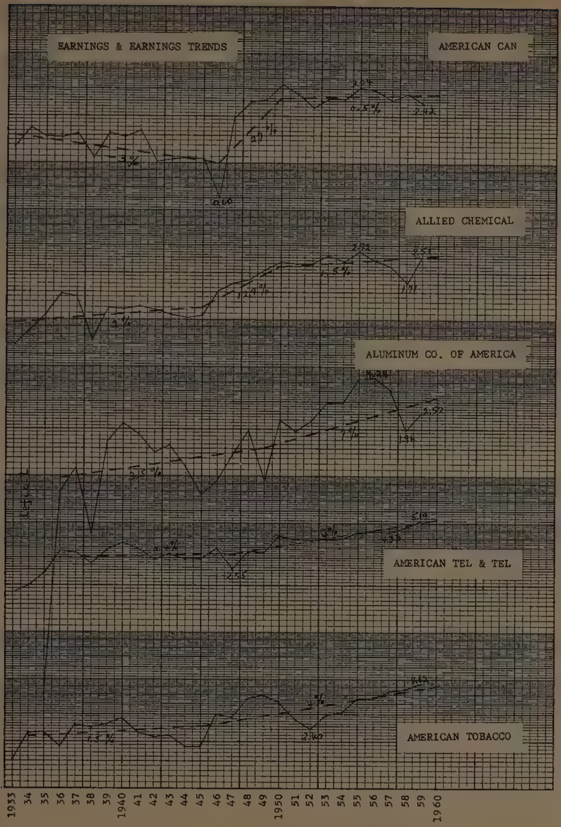


FIGURE II

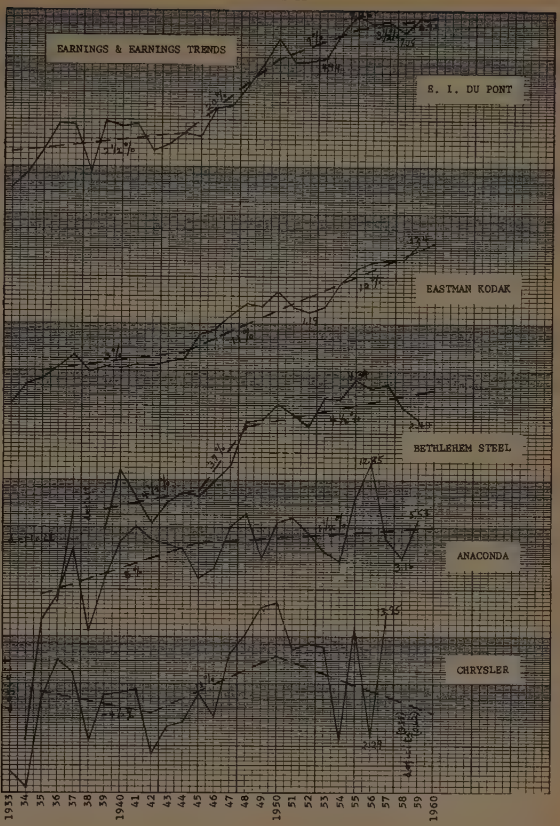


FIGURE III

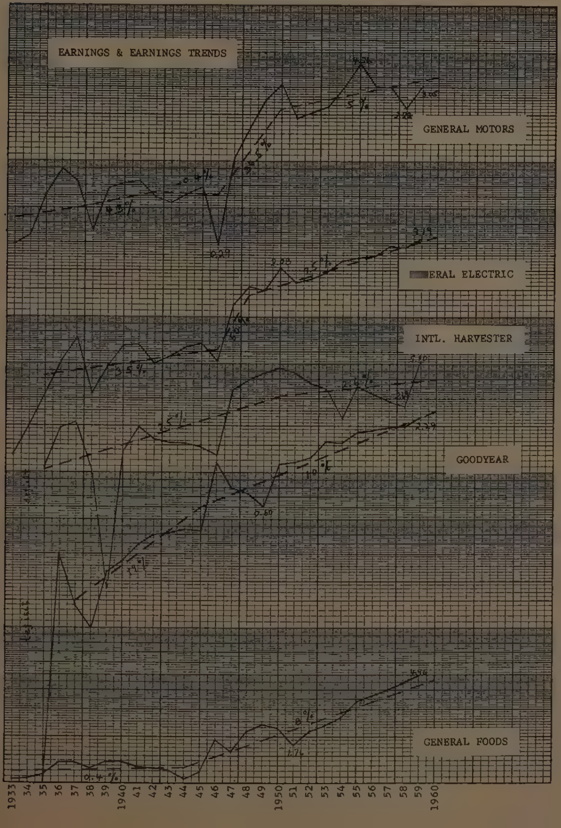


FIGURE IV

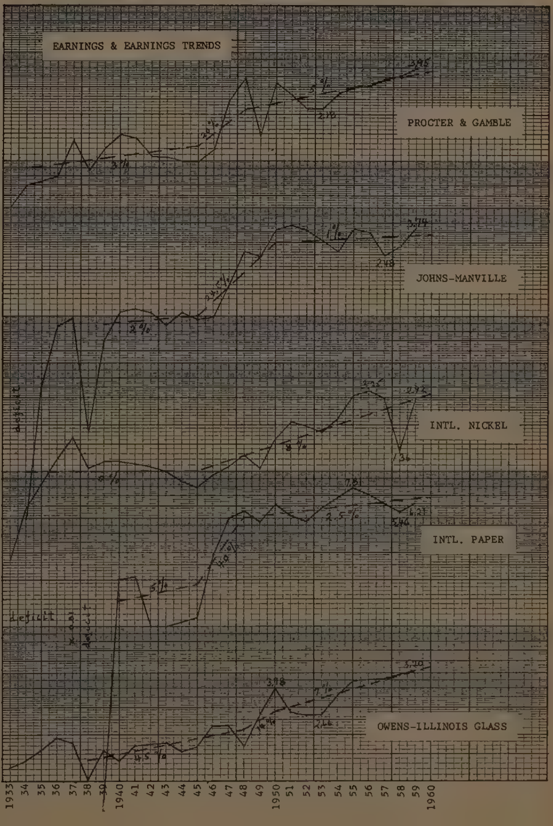


FIGURE V

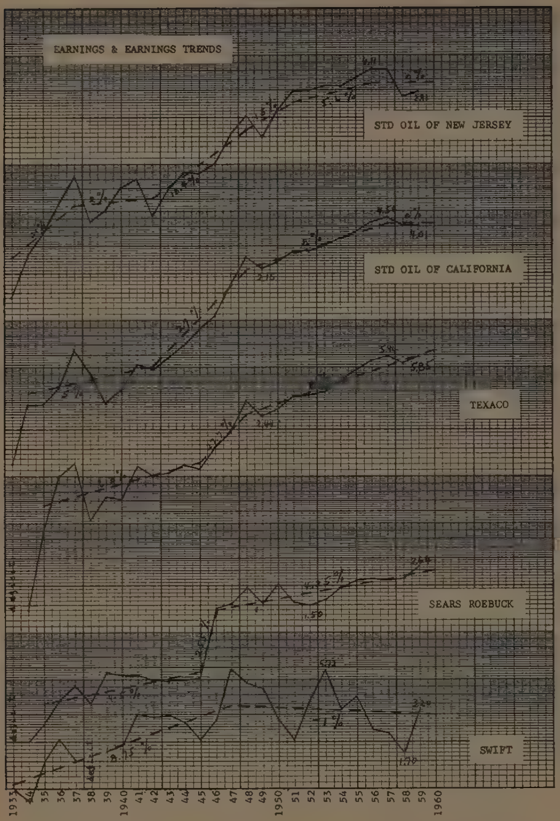
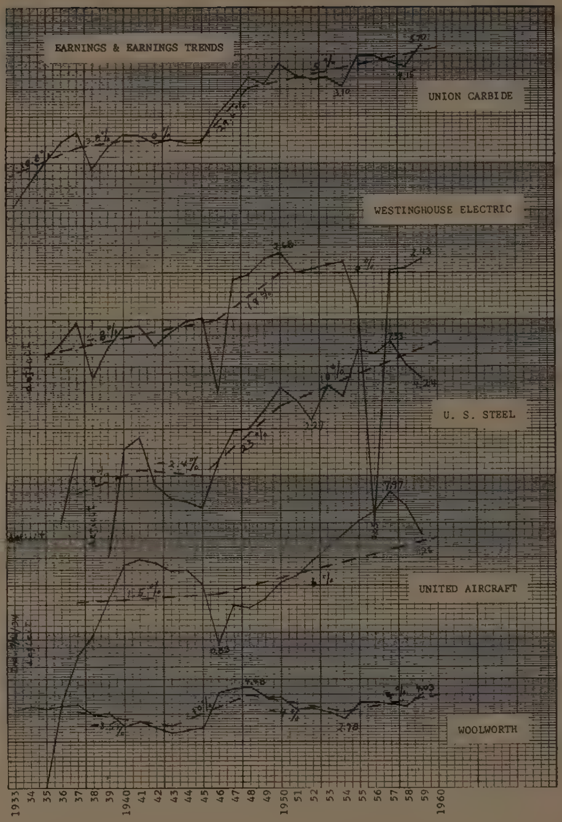


FIGURE VI



minal point. An institutional investor buying Eastman Kodak in 1960 may well have a conviction that, at the end of the coming decade, its estimated earnings growth rate may have to be revised upwards or, at least, scaled downward gently, instead of a sudden Prometheus-like fall from heaven to earth.

Besides, valuation work will attain its best achievements when it is done in consultation with the investor seeking comparative appraisals. His thinking should not be forced into the straitjacket of other peoples' estimates of future earnings. Intelligent investors whose views about the future can cover a wide range should not be fitted into ready-made appraisals; valuations must be cut to order. Quite obviously, in a study addressed to many thousands of subscribers this cannot be done.

Likewise, not only will estimates of future earnings vary among different investors, but even a single investor's projections will undergo changes as he gains additional information or merely as a result of the passage of time.

For example, with reference to our illustrative Stock #1, it is conceivable that some two years ago its breathtaking research developments may not yet have reached their present promise. The same investors who may now be willing to accept estimates of extraordinarily high earnings growth rates, would perhaps at that time have felt comfortable only by projecting considerably lower rates and for much shorter periods. The stock's current price, which may look extremely undervalued in the light of the new estimates, would have then appeared to them as idiot's delight.

In the light of these remarks, it should be clear that we are bent on selling to our readers neither the nonexistent Stock #1 nor any of the thirty very real DJIA stocks. We submit *Table I,* and are supplementing it by *Table II,* because we cannot think of a simpler and more persuasive way of satisfying ourselves that we are building a seaworthy investment ship and may safely invite friends to participate in our voyage.

With particular reference to *Table II,* we point out that its contents may be enriched in many different ways to suit the specific requirements and objectives of institutional and individual investors. Dividends and yields, for instance, could be included. Generally, by using modern sorting and tabulating equipment, an investor can arrange the schedules in various combinations for selecting stocks most in line with his own planning.

Price Orbits

The pictures traced by *Figures I - VI,* and the statistical information in *Tables I* and *II,* summarize our method of estimating investment values.

TABLE I

VALUATION DATA OF DJIA AND ITS 30 COMPONENT STOCKS

	Per Share Earnings		Estimated Level of Earnings Trend Line		Average Annual Growth of Earnings Trend Line		1960-70 Earnings Trend Line Growth	
	1959 $	1960 Est. $	1960 $	1970 $	Years	%	Projected %	Implied by 6/1/60 Price %
DJIA	34.31	40.00	35.00	57.00	1948-55 1955-60	6.6 1.8	5.0	6.5
Allied Chemical	2.51	3.00	2.55	4.15	1950-60	1.5	5.0	8.0
Aluminum Co. of America	2.52	3.80	3.15	8.17	1949-60	7.0	10.0	13.0
American Can	2.42	3.00	2.75	3.35	1950-60	0.5	2.0	3.0
American Tel. & Tel.	5.19	5.50	5.25	8.55	1947-60	4.0	5.0	6.0
American Tobacco	4.62	4.90	4.50	6.05	1945-60	4.0	3.0	1.0
Anaconda	5.53	6.00	5.00	6.10	1945-60	1.5	2.0	-2.5
Bethlehem Steel	2.44	4.00	3.75	4.57	1948-60	4.5	2.0	0.5
Chrysler	d0.62	5.00	3.25	3.96	1950-60	-8.0	2.0	2.0
E. I. duPont	8.92	8.65	9.00	17.70	1950-55 1955-60	9.0 3.5	7.0	10.0
Eastman Kodak	3.24	3.60	3.25	9.65	1952-60	10.0	11.5	16.5
General Electric	3.19	3.50	3.30	7.81	1948-60	7.5	9.0	12.0
General Foods *	4.96	5.00	4.60	9.93	1944-60	8.0	8.0	12.0
General Motors	3.05	3.30	3.50	4.94	1950-60	5.0	3.5	2.0
Goodyear Tire & Rubber	2.29	2.50	2.50	4.48	1945-60	10.0	6.0	5.0
International Harvester **	5.10	4.85	4.00	4.64	1950-60	2.6	1.5	-1.0
International Nickel	2.92	3.15	3.20	5.72	1945-60	8.0	6.0	6.0
International Paper	6.21	6.50	6.75	8.64	1948-60	2.5	2.5	3.5
Johns-Manville	3.74	4.00	3.35	6.59	1950-60	1.0	7.0	6.0
Owens-Illinois Glass	5.20	5.75	5.50	10.82	1950-60	7.0	7.0	7.0
Procter & Gamble ***	3.95	4.80	3.85	8.31	1948-60	5.0	8.0	12.5
Sears, Roebuck ****	2.64	2.85	2.50	4.07	1946-60	4.25	5.0	8.5
Standard Oil of California	4.01	4.05	4.20	5.38	1948-57 1957-60	8.0 0.0	2.5	-2.5
Standard Oil of New Jersey	2.91	3.00	3.30	4.02	1951-56 1956-60	5.6 0.0	2.0	1.0
Swift **	3.20	4.50	3.00	3.84	1947-60	-1.0	2.5	3.5
Texaco	5.85	6.00	6.30	8.06	1948-60	8.0	2.5	-0.5
Union Carbide	5.70	6.50	5.50	11.87	1948-60	5.0	8.0	10.5
United Aircraft	4.26	3.00	4.00	4.64	1946-60	6.0	1.5	-2.0
U. S. Steel	4.24	6.70	7.25	9.07	1950-60	10.0	2.5	0.0
Westinghouse Electric	2.43	2.60	2.00	3.93	1950-60	0.0	7.0	13.0
Woolworth	4.03	4.35	3.95	6.43	1948-54 1954-60	-4.0 4.0	5.0	6.0

FISCAL YEAR-ENDS...... * March 31 ** October 31 *** June 30 **** January, 31

The plain daily bread of common sense needs not to be vitamin enriched, let alone treated by the 'magic' of higher mathematics, to find that rates of earnings growth and the appropriate capitalizers for the points lying on the earnings trend lines are interdependent. Instinctively, one and all, even those blissfully unaware of the simplest fact of financial life — compound interest— apply a higher capitalizer as soon as they observe a higher rate of earnings growth.

To express this relation in exact figures is not hard. The resulting values state the terms on which all stocks may be traded for one another at different points of time.

However, the investment values of individual stocks, which measure their barter positions, will frequently differ from actual market prices. Such differences will often be due to the pervading influence on stock prices of cyclical fluctuations. Values are exempt from the latter because they move along a secular trend. But even during cyclical expansions stocks enjoying high earnings growth rates may sell at lower multipliers than other stocks whose earnings show a much flatter curve. And, conversely, it may also happen that market prices will run way ahead of computed values. Ingrained investors' liking of certain industries and disfavor or lack of experience with others—as well as acquired respect for, or distrust of, certain managements — may delay for a long time an equalization of capitalizers. Other psychological influences may sidetrack for protracted periods the normal capitalization process. The technique of computing *Price Orbits,* and relating them to *Investment Values,* may be helpful.

If we can project future earnings more accurately and capitalize them more correctly than the market does at the moment, we may assume that the market's pricing will tend to move in the direction of our *Investment Value* until they are joined. But the market's traveling speed toward this goal will be conditioned by the degree and timing of recognition of the projections as well as by cyclical hazards along the road.

Both an *Investment Value* based on present worth, and a *Price Orbit* bearing witness to the current appraisal of the market should be familiar tools in the hands of all investors. *Investment Value* provides the long-term objective. *Price Orbit,* in turn, reveals the limits within which normal price has been contained so far.

Another stock market phenomenon may be noted in this connection. Probably as a result of the shopworn

TABLE II

SCHEDULE OF COMPARATIVE VALUES

	Investment Values			Closing Price	6/1/60 Price as % of Investment Value		
	1960 $	1965 $	1970 $	6/1/60 $	1960 %	1965 %	1970 %
DJIA	570	665	765	624.89	110	94	82
Allied Chemical	42	49	56	52	124	106	93
Aluminum Co. of America	73	90	108	90 1/4	124	100	84
American Can	36	40	45	38 7/8	108	97	86
American Tel. & Tel.	85	100	115	91 3/4	108	92	80
American Tobacco	63	72	82	54 5/8	87	76	67
Anaconda	65	73	83	47 3/8	73	65	57
Bethlehem Steel	48	55	62	44 1/4	92	80	71
Chrysler	45	48	54	44 7/8	100	93	83
E. I. duPont	169	203	237	205 1/4	121	101	87
Eastman Kodak	83	105	126	119 1/2	144	114	95
General Electric	71	87	103	89 1/4	126	103	87
General Foods	92	112	132	121 1/2	132	108	92
General Motors	50	58	66	43 7/8	88	76	66
Goodyear Tire & Rubber	43	51	60	40	93	78	67
International Harvester	50	56	63	42 1/2	85	76	67
International Nickel	55	66	77	55 1/8	100	84	72
International Paper	91	104	117	100	110	96	85
Johns-Manville	63	75	87	61 5/8	98	82	71
Owens-Illinois Glass	102	123	144	103	101	84	72
Procter & Gamble	76	94	111	108 1/2	143	115	98
Sears, Roebuck	40	47	55	51 7/8	130	110	94
Standard Oil of California	57	64	73	40 1/8	70	63	55
Standard Oil of New Jersey	43	48	54	40 1/8	93	84	74
Swift	41	46	52	43 7/8	107	95	84
Texaco	83	96	109	65 1/2	79	68	60
Union Carbide	112	134	158	133 1/2	119	100	84
United Aircraft	49	56	63	37 3/4	77	67	60
U. S. Steel	94	108	123	79 1/4	84	73	64
Westinghouse Electric	38	45	53	59 1/4	156	132	112
Woolworth	64	75	86	69 1/4	108	92	81

habit of thinking of stocks in terms of their price-to-earnings ratios, a peculiar paralysis seems to grip the will to invest in the presence of stocks with exceptionally high earnings growth rates. A kind of invisible "sound barrier" often prevents a more generous market capitalization of a stock's legitimate growth prospects when exceptionally high price-earnings ratios are attained. It takes a long time for multipliers of current earnings to overcome the resistance of traditional ceilings. Even when confidence in sustained growth is strong, "the market" still may withhold for a long time the sanction of higher capitalizers.

However, this typical paralysis seems to be wearing off. The true function of growth is being more clearly realized. During periods of general pessimism, growth stocks begin to play the role of defensive stocks and their prices may advance in the midst of a general decline of the market.

Our method of computation of *Price Orbits* is discussed in *Appraisal of General Motors Common Stock* (*The Analysts Journal,* May 1959). We shall gladly send reprints of this study. The same method is used on *Figure VII* for drawing *Price Orbits* through the annual ranges of the DJIA and four stocks selected out of its thirty component equities. They were chosen because *Table II* lists their current prices as being out of line with value. *Figure VII* shows how these discrepancies are treated by the market itself.

Price Orbits are obtained by applying constant capitalizers ("k") to representative earning power. Two sets of constant capitalizers are shown for DJIA and each of the four stocks. The lower capitalizer covers the entire period since the 1930's. The higher "k" deals with the seven most recent years beginning with the abolition of the EPT.

The two extreme cases on *Figure VII* are those of Standard Oil of New Jersey and Eastman Kodak.

Jersey is undervalued on *Table II.* It is also underpriced on *Figure VII. Table I* and *Figure V* reveal that its 1960 earnings trend point lies relatively low. This is due to its interrupted growth during the last few years—the result of the grave ailment which was already then starting to grip the oil industry. Furthermore, from this low point of departure, we project for the next 10 years on *Table I* a very low historical rate of growth. Long before the end of this 10-year period, current problems are likely to be resolved with a consequent resumption of a much higher growth rate.

Eastman Kodak, on the other hand, has its earnings trend line anchored at a high point. And from this elevated 1960 platform, we project, in *Table I,* for the next ten years, the steepest growth rate of any of the

The pace of progress continues in America's fastest growing port

The Port of Philadelphia, which is now the No. 1 import area of the nation, is growing at a rapid pace. It plays a major role in the dynamic renaissance of the Greater Philadelphia area. More and more, industry uses its modern facilities to import raw materials and export finished products. The port is only one of the factors that make this area fertile ground for industrial growth. Geography is another. Within a hundred mile area are more than 23 million people with an annual buying power of $49 billion. The comprehensive transportation network here makes them easy to reach. In addition, industry has at its disposal abundant, dependable electric power, available for every present and future need. If you want your business to grow fast, set it in this Land of Plenty.

PHILADELPHIA ELECTRIC COMPANY

A business-managed, tax-paying utility company owned by more than 100,000 stockholders . . . Serving the world's greatest industrial area, Delaware Valley

STANDARD OIL COMPANY (INDIANA), 1959 ANNUAL REPORT

RESERVES AT ALL-TIME HIGH

EARNINGS INCREASED 18.5% OVER PREVIOUS YEAR

NORTH AMERICAN PRODUCTION. Our proved reserves of crude oil and natural gas liquids in the United States and Canada rose to 2,243 million barrels—the highest point in history. A large bank of favorable acreage is under lease. A new record in natural gas production was established while reserves were climbing to a new high total of 13.3 trillion cubic feet. Net domestic production of crude oil and natural gas liquids showed a 7.1 per cent increase over 1958 (contrasted with an industry gain of 5.7 per cent) despite continued severe proration in Texas and other states and the province of Alberta. Net production averaged 305,839 barrels a day despite restrictions to 123 allowable producing days in Texas last year. Natural gas production increased 12 per cent to 1.51 billion cubic feet a day.

FOREIGN ACTIVITIES. Some of our foreign prospects for crude oil development moved toward realization. We drilled 91 wells in Argentina under a contract with the state oil agency, developing an indicated producing capacity of 24,000 barrels per day. In Venezuela we hold a one-third interest in a well in central Lake Maracaibo that flowed light oil on test at a rate of 5,000 barrels daily. In addition exploration continues in Iran, Libya, Algeria, Mozambique and Italy.

MANUFACTURING. The year saw significant advances in the continuing program of improvement and modernization. At Whiting, a 140,000-barrel-a-day crude running unit, one of the largest in the world, came on stream replacing nine smaller obsolete stills. At Wood River a 67,500-barrel-a-day unit replaced five obsolete stills, and a 30,000-barrel-a-day fluid catalytic cracking unit retired six old thermal cracking units, a small cat cracker, and two vapor recovery units.

RESEARCH. In 1959 the potential of the Athabasca tar sands of Canada was brought closer to realization by our exploration and production research efforts and field tests. In addition to a number of important product improvements, our product and process research was reorganized to provide a more effective focus of scientific talents.

MARKETING. Despite increasingly keen competition, our sales record was surprisingly good. We increased our share of the reseller market on a national average. All-time sales records were set in tires, batteries, accessories and LP-gas. Efforts to reduce distribution costs gained momentum with a unique pipeline terminal at Trenton, Missouri, which permits drivers to load trucks directly from the pipeline, thus eliminating storage expense and reducing manpower requirements.

NET WORTH AND FINANCING. Net worth at the end of 1959 stood at $2,162,000,000, a gain from 1958's record $2,076,900,000. Book value per share increased to $60.44 in 1959 from $58.06 in 1958.

DIVIDENDS. Total dividends in 1959 had a value of $1.931 per share, equal to about 50 per cent of earnings. Regular cash dividends for the year were supplemented by a special dividend in Standard Oil Company (New Jersey) stock with a value, based on the December 18 market price, of 53.1 cents per share. We have paid dividends for 66 consecutive years.

STANDARD OIL COMPANY
910 SOUTH MICHIGAN AVENUE, CHICAGO 80, ILLINOIS
Please send me a copy of the Standard Oil Company (Indiana) 1959 Annual Report.

NAME______________________________
STREET____________________________
CITY________________STATE__________

THE STORY IN FIGURES

FINANCIAL:	**1959**	**1958**
Total income	$1,980,779,000	1,882,441,000
Net earnings	$ 139,597,000	117,775,000
Net earnings per average outstanding share	$ 3.90	3.29
Dividends paid*	$ 54,498,000	53,197,000
Dividends paid per share*	$ 1.931	1.687
Earnings retained in the business	$ 85,099,000	64,578,000
Capital expenditures	$ 268,868,000	270,387,000
Total assets	$2,846,502,000	2,769,317,000
Net worth	$2,161,981,000	2,076,853,000
Book value per share	$ 60.44	58.06
PRODUCTION:		
Crude oil and natural gas liquids, barrels per day, net	307,686	285,474
Natural gas, thousand cubic feet per day, net	1,509,343	1,347,590
Oil wells owned, net (year end)	11,164	10,872
Gas wells owned, net (year end)	2,268	2,193
MANUFACTURING:		
Refinery input, barrels per day	598,280	640,648
Crude running capacity, barrels per day (year end)	707,400	691,800
MARKETING:		
Refined products sold, barrels per day	661,466	645,745
Retail outlets served	28,380	29,032
Natural gas sold, thousand cubic feet per day	1,566,993	1,422,498
Crude oil sold, barrels per day	325,416	277,183
TRANSPORTATION:		
Pipelines built, miles	252	281
Pipelines owned, miles (year end)	17,609	17,568
Pipeline traffic, million barrel miles	155,332	152,796
Tanker and barge traffic, million barrel miles	90,191	93,710
PEOPLE:		
Stockholders (year end)	158,553	151,937
Employees (year end)	43,569	46,033
Wages and benefits	$ 348,411,000	352,469,000

*"Dividends paid" include the value *on this Company's books* of the Standard Oil Company (New Jersey) stock distributed as a dividend. "Dividends paid per share" include the *market* value of the Jersey stock on date of distribution.

THE COMPANY AND ITS SUBSIDIARIES

Standard Oil Company (Indiana) is a fully integrated oil company. The parent company, established in 1889, operates as a refiner, transporter, and marketer in 15 Midwestern states. In these it has exclusive trade-mark rights to the Standard Oil name. Two subsidiaries—The American Oil Company and Utah Oil Refining Company—refine and market in 33 other states.

PARENT COMPANY

STANDARD OIL COMPANY (INDIANA)

WHOLLY OWNED SUBSIDIARIES

UTAH OIL REFINING COMPANY
Manufactures petroleum products and sells them in five Western states.

THE AMERICAN OIL COMPANY
Manufactures, transports, and sells petroleum products in 28 Eastern, Southern, Southwestern, and Western states.

Other major subsidiaries (wholly owned): Pan American Petroleum Corporation • Pan American International Oil Corporation • Service Pipe Line Company • Indiana Oil Purchasing Company • Tuloma Gas Products Company • Amoco Trading Corporation • Amoco Chemicals Corporation

thirty stocks. Yet *Table II* and *Figure VII* agree that the stock is currently drastically over-valued and over-priced. Even if we compute for Eastman Kodak a third constant capitalizer for the last 4 years alone, we find that k = 21.4 and that the stock's 1960 *Price Orbit* point falls on 60. To defend EK's current price, we have to assume a dramatic upward shift in the historical rate of its earnings growth or extend the already high present rate well beyond the ten-year span used in *Table I.*

The Problem of Timing

After being adjusted to the investor's own concepts of the most probable rates of earnings growth and the length of the periods during which they are likely to be sustained, the resulting *Investment Values* and *Price Orbits* may be added to exhibits on which to base a decision to buy or sell. Yet there still would remain the question of the most propitious timing. Our *Appraisal of General Motors*—to which we already referred above—deals briefly with this aspect in a section entitled *GM's Market Action.* It offers some principles of timing. But many investors undoubtedly have their own ideas in this respect and have experience in coping with this problem by other methods.

Secular Growth and Cyclical Fluctuations

In a preceding section, it was suggested that investors may be envisaging for Eastman Kodak a longer period of high growth than the next ten years—with the growth rate eventually tapering off in easy stages. Such a projection could not be made by some arbitrary rule of thumb. It would have to include careful weighing of future cyclical contingencies. An example of that type of thinking may be found in the several sections of PART I of this paper which begin with *"Valuation Bases."* (Page 11 ff. of the Reprint.) Investors projecting a deep depression for the 1970's would have to give serious consideration to its potential effect on EK's earnings and its inevitable reflection on the latter's projected growth rates. And they should also take into account what they estimate as the most likely contours of business fluctuations in the intervening sixties.

To simplify the presentation, we omitted this aspect of valuation in discussing our illustrative Stocks #1 and #2. Yet it would have had considerable bearing on the estimated earnings growth of Stock #1 projected at very high rates for a very long period. Our 2½% ignorance rate has the merit of not only representing a long historical experience, but also of taking care of the probability of future cyclical declines in corporate earnings, some of which may prove to be deep. It should not be spliced to the projected earnings of all stocks at precisely the same point nor without a gradual transition when the final projected rates happen still to be high. But it may not be ignored nor forgotten except at the risk of transferring our appraisals into the world of unreality of uninterrupted growth which is just as contrary to the laws of economics as to those of biology.

The Economics of 1960

With reference to the current business cycle, it was already mentioned in PART I that it was getting to be quite middle-aged. Since then it has not become any younger. The latest business clues—while interspersed with many leads and lags as between individual statistical series—mostly point in the downward direction. Overcapacity existing in so many lines seems to be weighting down business spending and flattening it out just at the time when it was expected to come up with fresh vigor. Even this particular cycle's greatest mainstay—the consumer himself—shows signs of faltering in his will to buy. According to preliminary figures of the Department of Commerce, consumer spending declined more than usual in May. Most major lines were hit, particularly automobiles and department stores. And the recent cut in the discount rate by the Federal Reserve banks is itself a significant indicator of a change in the economic weather. All in all, with the general market being overpriced in terms of overall indexes such as the DJIA, and with the cyclical forces being engaged in a contraction, investors are justified in questioning the future course of stock prices.

FIGURE VII

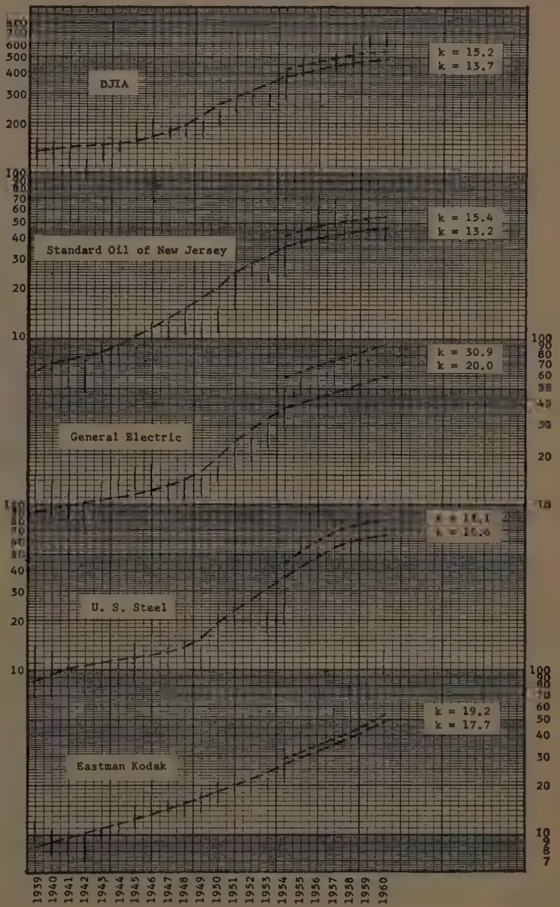
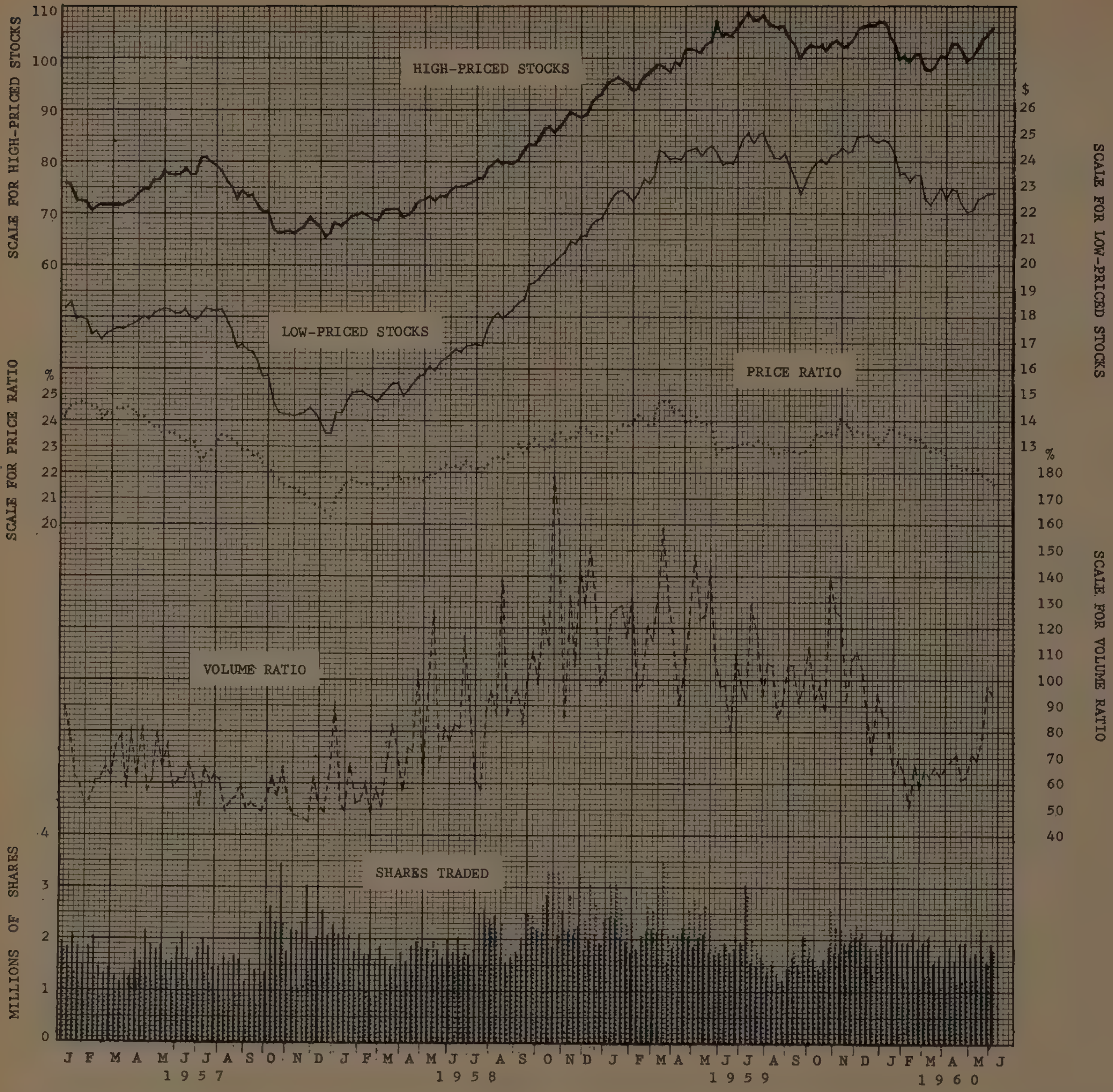


FIGURE VIII



However, we know from both theoretical and practical experience, that neither investment values nor business conditions may be successfully used as forecasters of stock market movements. Being among the most sensitive cyclical series, stock prices normally lead business at cyclical turns; and they can remain for long periods in positions of under-or-over valuation.

Figure VIII pictures the movements of stock prices for the past three and a half years. It does so in terms of two closely matched indexes. They were described in a prize-winning article, *The Core and the Margin* (*The Analysts Journal,* August 1954). Since then, each index was enlarged from 50 to 70 stocks, and, as before, each has a corresponding index of the number of shares traded. To the best of our knowledge, these are the only indexes of the activity of transactions that are adjusted for all stock splits and for the number of trading days during each week. We have compiled them on a weekly basis since 1937 and, on a daily basis, with few interruptions, since 1946.

After referring to *The Core and the Margin* study—of which reprints are available—the labels on *Figure VIII* will make it self-explanatory. We need only add that, as far as the number of shares traded is concerned, the solid vertical bars are those measuring the activity of transactions in the high-priced blue chips, while the weekly turnover in the low-priced marginal stocks is indicated by the dotted bars.

FIGURE IX

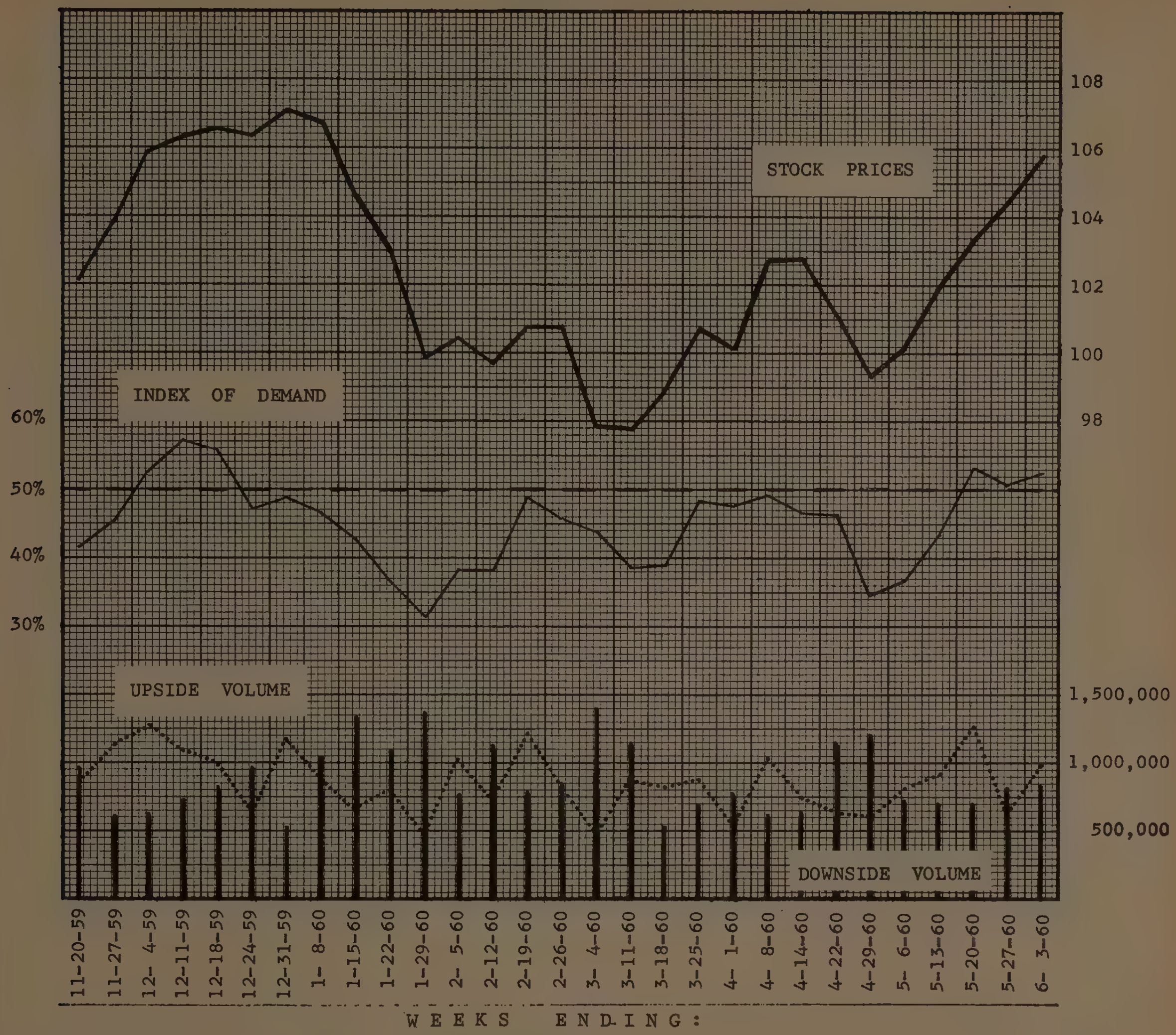


Figure VIII relates a revealing story. The last cyclical rise of stock prices began at the end of 1957—many months before business touched its own low in April, 1958. And a great many more months elapsed before Wall Street realized that the recession in business had really been completed. As late as October, 1958, i.e. a whole year after the turn in stock prices — and six months after the trough of the business recession—the leading financial columns were still proclaiming that the booming market was defying all rules.

We may observe that the Volume Ratio on *Figure VIII* is already shooting upwards. It rose from 50% to the vicinity of 100% between early February and early June of the current year. It is a more sensitive index than the Price Ratio and usually leads the latter.

Between the end of 1957 and the beginning of 1960, the Volume Ratio completed a full speculative cycle passing from a low level of somnolent and suspended animation to an awakening followed by speculative effervescence, succeeded in turn by a gradual loss of energy, an eventual complete dehydration of speculative activity, and a return to a low point in line with that from which it began to climb in 1957. The Index of Low-Priced Stocks, as well as the Price Ratio, support this presentation. For one year—between March 1958 and March 1959—they were moving upwards, catching up with the rise of the High-Priced Stocks. Thereafter they have been losing speed and strength as compared with the latter.

It is apparent from *Figure VIII,* which plots weekly closings of stock prices, that our Index of High-Priced Stocks had been in a declining trend from the middle of July 1959 through the middle of March 1960, i.e. for eight months. This could well qualify as a full-fledged —even though short—bear market. It seems significant that during the first wave of this decline—which culminated in September 1959—the solid and dotted vertical bars at the bottom of the chart, depicting the respective activities of transactions in high-grade and secondary stocks, were of approximately equal height. The Volume Ratio, which, like the Price Ratio also, carries the low-priced stocks in its numerator, was accordingly hovering around 100%. But during the second decline, which began early this year, both the liquidation and the subsequent recovery were dominated by the activity in the blue chips.

The last plotting on *Figure VIII* is for the week ending Friday, June 3rd. As of that date, the Price Ratio showed as yet no signs of reversing its downward trek. Should it do so shortly, it would complete a classical sequence characteristic of a strong upward reversal of stock prices, begun by blue chip leadership. In fact, it would constitute an even more clear-cut formation than the bottom at the end of the 1957 decline.

That the development of such a sequence is not unlikely is suggested by *Figure IX*. It adds two months to *Figure IV* of PART I where the technique of its construction was described. By the end of May, the Index of Demand began to show signs of battle fatigue as compared to the continued strength of Stock Prices. Since the latter are the High-Priced Stocks of *Figure VIII*, it seems plausible that the Low-Priced Stocks may for a while carry the ball.

This is a study of methods of analysis. We should be careful not to give it the flavor of a stock market letter. Discussions should be limited to illustrative aspects, reserving practical counsel for our clients. As a matter of broad general advice, we might simply say that, in addition to studying the internal structure of the trends of stock prices, investors should keep as close a watch as their circumstances allow on key manifestations of business conditions. If stock prices made their lows last March, we should be witnessing sometime next fall a reversal in business as well.

The usefulness of comparative schedules of investment values will be enhanced if the decisions they inspire are carried out under propitious conditions of cyclical timing. Results should be most favorable when action is taken during an early phase of a new cycle of stock prices. And, within the framework of an over-all picture, due attention should also be given to the bill of health of the particular industries represented by the stocks we select. Such industrial diagnosis and cyclical analysis are vital aspects of the general problem of timing referred to earlier in this paper. This important area of investment planning should not be limited to narrow technical work.

Beyond the Horizon

In a beautiful but longwinded French novel, the hero lies dying at the end of many volumes and of a full life. His body is dying and his spirit is ranging over the completed life in quest of its meaning. "What is life?" queries *Jean-Christophe*. And as a final summary, a last illumination, the answer comes: life is a struggle against nothingness.

As long as we live, we wage a ceaseless battle against the void of non-existence. And our minds—as long as the light is on—try to grasp the structure of the universe around us—what it is made of, and how it works. We never accept less than the whole answer. Where knowledge stops, we fill the gap with hypothesis and legend. Transmitting from generation to generation our accumulating wisdom, we push forward—in a unit package of fact and faith—the frontiers of certainty and cut down the realm of ignorance, doubt, fantasy and dreams.

In our own world of stocks and bonds, our minds crave also a full and complete answer. Yet our task is more difficult than most because investment is a disposition for the future. Since the future is unknown, investment decisions must contend with probabilities. Whether an investor recognizes it or not, forecasting is for him not a matter of choice or inclination, but inescapable necessity. And competent investment largely consists in reducing the area of unavoidable uncertainty.

What can an investor do to help himself to achieve this goal?

First, he can try to secure a firm grasp on the significance of the present. To quote Macaulay, "the possession of the necessary knowledge of the present, even when such knowledge is easily obtainable, is rare. . . . The logic we lack . . . is the ability to distinguish the relevant from the irrelevant facts around us and to reason assuredly from such data. . . . Indeed, if that inability were less, our knowledge of the future would be greater."*

The investor's second endeavor should be to learn how to construct from the facts describing and measuring the present a solid launching pad from which to project his estimates of future facts.

As pointed out, the investor has to cope with probability. Mathematicians have found many ways for measuring it and thereby determining the degrees of certainty. Their methods are based on the laws of chance. However, the investor's difficulty in this respect is that stock prices—the time series in which his interest is greatest—is not a true chance series. Only occasional periods occur when the pre-dominance of random factors is so great that stock prices may be governed by chance. But investors' limitations in this respect can be compensated, we think, by our technique of valuation. It tries to trace firmly the boundaries between ascertainable knowledge, reasonable estimates and honest ignorance within the unit package of investment value.

Ignorance of the future should be the great disciplinarian of investors. Value is a balance wheel spinning against the backdrop of a long perspective receding further and further into a thickening fog of uncertainty and doubt. Despite the lures and enticements of sellers of esoteric literature—despite all temptations—investors should not let their minds roam too far beyond the horizon. They have sufficient tools for organizing their forces under the banner of judgment drawn from knowledge and experience—the roots of the art of investment.

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* Frederick R. Macaulay, *Some Theoretical Problems Suggested by the Movements of Interest Rates, Bond Yields and Stock Prices in the United States since* 1856. (National Bureau of Economic Research, 1938), p. 15.

The Canadian on the Banff-Lake Louise route through the Rockies.

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A jet-prop Britannia over Rome. Coming soon, long-range DC-8 jets.

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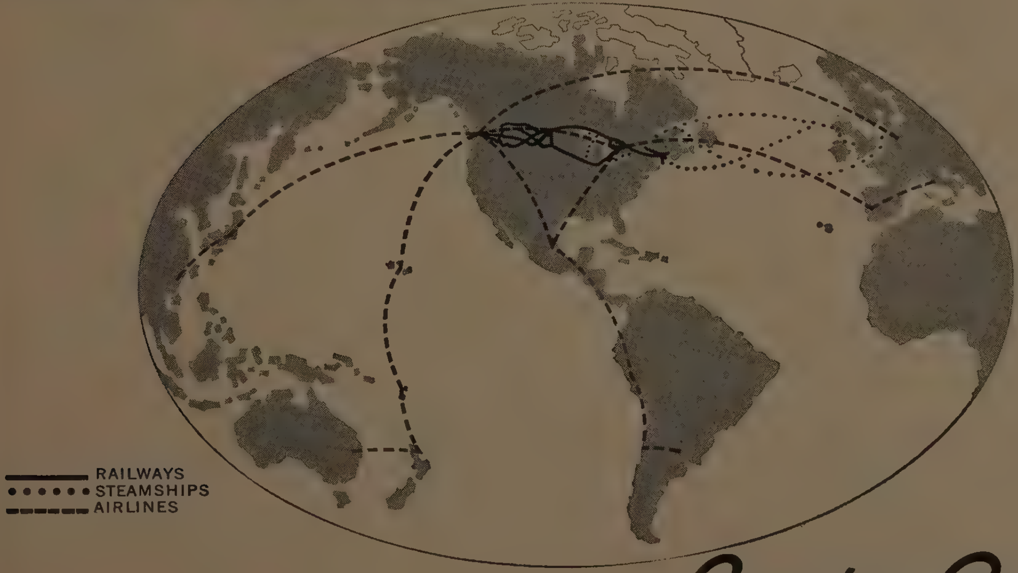

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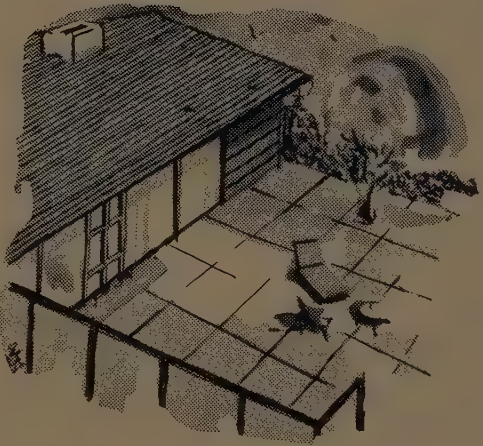

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NATURAL GAS SEMINAR

Texas Eastern: Articulate Spokesman for the Industry

by Warren Burns

SHREVEPORT, LA.—Natural Gas, from its underground habitat to burner tip.

This was the subject authoritatively and interestingly presented, in mid-June, to 27 Financial Analysts from across-the-nation. And acting as articulate spokesmen, for this giant among industries, were more than 30 of the top management team of Texas Eastern Transmission Corporation.

Over a four-day period (the fifth was optional), with daily classes commencing at 8 a.m. and lasting to 4:30 p.m. — with an hour and a quarter luncheon break — Analysts became acquainted with the multifold activities of the great $23 billion natural gas industry. At noon, Louisiana's colorful cyprus country could be viewed while bathing and munching a poolside buffet at the plush Shreveporter Motel headquarters. Company management joined in the swim — and seminar discussions often continued.

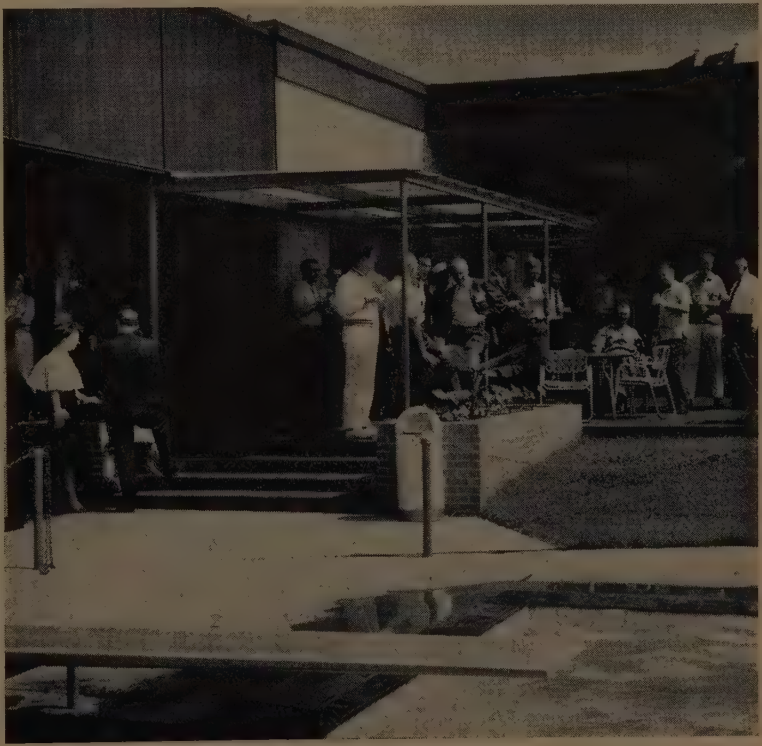
Four days of intensive study were supplemented by a flying trip to a drilling site and the company's natural gas processing plant in the Rayne field. In case of both the drilling operation and the processing plant, Analysts had been briefed on what to expect during classroom sessions and en route airborne. Then, sort of warming up to the subject, the weather provided a hot humid 98° while management and guests puffed up steps to a drilling rig's platform, and later swarmed over the processing plant.

Primary aim of this Natural Gas Seminar (actually the second which Texas Eastern has held) was to conduct it along the lines of "a pilot plant operation" to determine—and Analysts' opinions were sought in a six-page evaluation report—the best *modus operandi* for future similar seminars for educating younger Financial Analysts.

Texas Eastern (which views itself as "Pipeliners of Energy"— an apt phrase!) appointed its scholarly and extremely well-informed Financial Vice President and Secretary James Ward Hargrove as "dean" of the second Natural Gas Seminar. Illness prevented President Orville S. Carpenter from attending.

INDUSTRY'S FOUR PROBLEMS

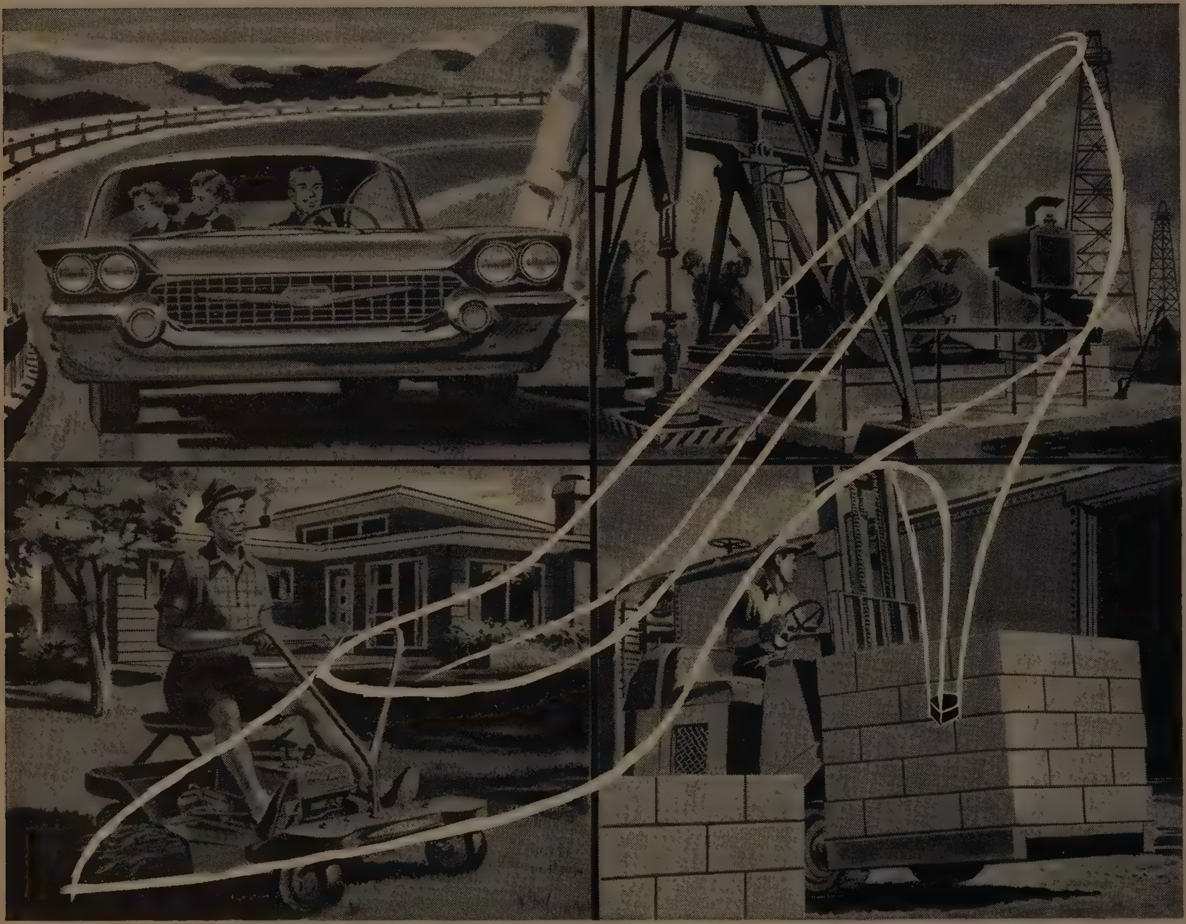
And while it is impossible, here, to more than summarize the many hours of fascinating and illuminating talks, given by Mr. Hargrove and his capable associates, it might be interesting, first, to high-light the "dean's" remarks, made at the closing session on the fourth day. Mr. Hargrove spoke of "The Four Prob-



Learning about the Natural Gas Industry under ideal conditions. Here, a group of Financial Analysts and Texas Eastern officials are shown at poolside, adjacent to the Seminar's meeting room, during a morning coffee break, in Louisiana.

Warren Burns, managing editor of The Financial Analysts Journal, is a former international editor of The Oil and Gas Journal and board member of Petroleo Interamericano. He was also Washington Bureau Chief for the Platt Oil Publications (McGraw-Hill Publishing Co.). And for seven years, was eastern vice president, public relations, Standard Oil Co. of California. Mr. Burns is a graduate of the University of Southern California.

EAGLE-PICHER / Manufacturer's Manufacturer



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27 Financial Analysts Attend Texas Eastern's Gas Seminar

Twenty-seven Financial Analysts, from San Francisco to New York, and from Chicago to Houston, attended Texas Eastern's Natural Gas Seminar at Shreveport, La. Their names and firm connections follow:

James Anderson, Underwood, Neuhaus & Company, Houston; Walter M. Bader, First Southwest Company, Dallas; Albert C. Barkwill, The Lehman Corporation, New York; James L. Bayless, Rauscher, Pierce & Company, Inc., Houston; August Belmont IV, Dillon, Read & Co., Inc., New York; Charles M. Bliss, Harris Trust & Savings Bank, Chicago; Mrs. Beryl H. Bunker, John Hancock Mutual Life Insurance Company, Boston; Thomas Burke, Rotan, Mosle & Company, Houston; Warren Burns, The Financial Analysts Journal, New York; Edward H. Cronin, Old Colony Trust Company, Boston; Miss Mary A. Dunlea, Bache & Company, New York; Edgar R. Everitt, Kidder, Peabody & Company, New York; G. Leslie Fabian, Dean Witter & Company, New York.

Also: Harry L. Fuller, Continental Casualty Company, Chicago; Roy L. Garofalo, Clark, Dodge & Company, New York; W. Truslow Hyde, Jr., F. S. Smithers & Company, New York; Herman B. Joseph, Joseph, Mellen & Miller, Inc., Cleveland; William H. Loesche, Jr., Penn Mutual Life Insurance Company, Philadelphia; Miss Georgia McHugh, Fireman's Fund Insurance Company, San Francisco; Frederick L. Miller, Blyth & Company, Inc., New York; William K. Rahner, The First Boston Corporation, New York; Phillip Reynolds, The Travelers Insurance Company, Hartford; William Scott, Irving Trust Company, New York; James E. Snyder, A. C. Allyn & Company, Chicago; Robert H. Stovall, E. F. Hutton & Company, New York; Alfred T. Wells, White, Weld & Company, New York; and Robert W. Yates, Chase Manhattan Bank, New York.

lems of the Natural Gas Industry," and he listed them as:

(1) The area of natural gas supply; (2) the area of natural gas markets; (3) natural gas regulation; and (4) money supply.

Speaking of the physical availability of gas reserves, the speaker visioned a need of at least 1,000 trillion cubic feet still to be discovered. And the companies doing the drilling "will only make a dent in future reserves." And still on Problem No. 1, Mr. Hargrove, while apologizing for use of the word, said that the dictionary didn't have anything better than "Dynamic" to describe the growth possibilities of the natural gas industry. Moreover, this industry, he said, is aware of the trend in shaping its destiny, and equally aware of what cannot be changed.

In the area of gas markets (Problem No. 2), Speaker Hargrove stated that the industry must continue to concern itself with obsolescence and the economic competition from other fuels, as "nobody knows what the future holds." And in the latter connection, he said, natural gas, a growth-oriented industry, will grow in areas other than it has during the past 10 years. "It will express itself other than as a utility, for if we can't go in one direction, we'll go in another."

As to regulation, the third problem, it was stated that despite government obstacles, the natural gas industry has managed to operate, and at a profit. The rate base and the rate of return, inevitably interwoven, pose tremendous ponderables. And here the industry was further described as service-motivated, and the great philanthropic organizations, which it has established, were cited as concrete evidence.

As to the fourth problem, money supply, Mr. Hargrove observed that few industries spend money as rapidly—particularly during the summer months when several spreads of pipe are being laid simultaneously. Then, in the natural gas industry, as compared with the electric utilities, there are fewer companies—and often this constitutes a problem, Texas Eastern's financial vice president stated, as the same people are returning, often to the same investor, for more capital. Then, too, often an investor doesn't like to put too much money in a single industry, or a single firm in that industry. But, being profit-motivated the overriding consideration of management is to put money to work for a greater and greater end yield.

(continued on next page)

PIPELINE DIVERSIFICATION

Diversification, a subject which always alerts Financial Analysts, and brings their sharpened pencils into play, was interestingly dealt with by W. T. Thagard, manager, Coordinating and Planning Department of Texas Eastern.

On this subject, Mr. Thagard said that " 'diversification' and the business concept that it implies have achieved a large measure of attention in the post-war period," but "unfortunately for the person who attempts a study of this process, there often exists a fundamental barrier to understanding. Too often people, speaking and writing on diversification, have widely differing ideas in mind." Furthermore, the speaker explained:

"Frequently a business move may involve both diversification and integration, and no degree of care in definition can eliminate some 'no-man's land' of confusion in a complicated undertaking. Whether or not to diversify and, if so, in what direction, depends completely on a firm's objectives. A given diversification program (including the absence of one) may be termed successful if it enables a management to attain its particular objectives." Mr. Thagard then made the following observations:

"It is apparent that operation within a utility climate provides stable, but conservative, earnings. Diverse management philosophies have been evident within pipeline companies about the desirability or propriety of attempting to improve earnings by diversification. Some take the view that pipelines are utilities and should remain such, reconciled to their stable but non-spectacular earnings. Others actively attempt to increase earnings through diversification in fields not related to oil and gas. As always, many firms occupy a middle-ground.

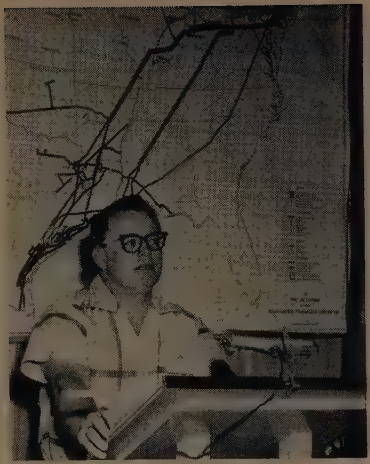
"Another of the basic motives for diversification by pipeline companies is the potential obsolescence of markets. In this age of technology, even the most vivid imagination cannot foresee the changes that may result from the application of fuel cells, solar batteries, synthetic and atomic fuels. It is doubtful that anyone can accurately predict today the rapidity with which the over-all energy picture will change or the extent of such change. History points to many examples of the rapid decline of what appeared to be ultimates at the time: witness the demise of gas lighting, railroad - passenger travel, piston-driven aircraft, and steamboats.

"Finally, there is the third principal basis on which pipelines tend to diversify: the availability of oil and natural gas liquids as joint-products. The joint-product relationship in the gas industry is unique. The gas pipeline that integrates backward in order to develop its own gas supply may well find itself in the oil business. Oil and gas are frequently found together. Even if gas alone is found, it is likely to contain liquids which must be extracted before the gas can be placed in a pipeline. Liquids acquired from the gas, or as the result of exploration, may be sold outright; or they may be produced and sold on a long- or short-term basis by the gas company; or facilities may be acquired to further process these raw materials into petroleum products or petrochemicals.

"Given oil and natural gas liquids, all further steps in processing merely represent forward vertical integration from that raw material base. In terms of the corporate enterprise, however, diversification has occurred. Where previously the firm was solely a pipeline, it now engages in one or more facets of the oil business — a business characterized by unique economic circumstances and generally different markets from gas.

The Question: To Diversify or Not

"As indicated above, considerable difference of opinion exists as to the propriety of pipeline diversifications. It is generally agreed that, for a pure transmission company, diversification usually involves the assumption of additional risk, whereas diversification by a manufacturing concern may or may not. If a pipeline is considered a utility, is the management acting consistently with the aims of investors by assuming the added risks inherent in diversification? Is the decision to diversify a reasonable exercise of management discretion?



James W. Hargrove, Texas Eastern's financial vice president and secretary, is shown in his role as "dean" of the Natural Gas Seminar.

"The answer to these questions lies in the unique nature of natural gas pipeline companies. The monopoly concept which characterizes utilities is not altogether appropriate here, and some choose to place transmission companies in the quasi-monopoly category. Natural gas competes with coal, oil, and electricity; and it competes very actively. In addition, the natural gas pipeline does not enjoy the market protection customarily associated with a monopoly. A given market may be served by more than one transmission company. The distribution companies of that market may deal with one or a combination of pipelines serving the area. Or, as has occurred, the distribution company may itself enter the transmission business. The unpredictability of technological advance over the longer run gives added support to the belief that the 'riskless' label is a misnomer when applied to utility-associated pipelines.

"Natural gas pipelines are, in fact, insulated neither from long-term nor short-term risks — although such risks may not be the risks facing a manufacturing company in day-today competition. The above is a matter of degree of risk, since the stockholders of the transmission company have been associated with a certain level of risk from the outset.

"The risk of a new venture, especially in a diversification program, is related to raw materials, processes, markets and management. Risk can be great because of the uncertainty of an erratic supply of raw material, rapidly changing consumer tastes, or a high rate of technological obsolescence either in the manufacturing process or the utilization of the product. Generally speaking, the farther afield a new venture is from the firm's previous business, the more risky it becomes, regardless of the economic circumstances. Put another way, the more the company's basic management skills, process, product and market have in common with the diversification activities, the less is the risk—other things being equal.

"With these principles in mind, the most logical areas of diversification for natural gas pipelines can be determined from a study of the pipeline's unique characteristics and its relative strengths and weaknesses. Diversification which emphasizes the pipeline's relative strengths and minimizes its relative weaknesses is most likely to be successful.

"The following factors are characteristic of natural gas pipeline companies:

A. *Management* — Familiar with utility regulation. Frequent contact with over-all problems of demand and supply of energy. Accustomed to dealing with large sums of money. Not accustomed to operating in highly competitive, rapidly changing environment.

B. *Finance*—Strong credit position. Experienced in raising large amounts of money.

C. *Raw Materials* — Deals primarily with natural gas. Crude oil often found with gas, and natural gas liquids may be available.

D. *Operation*—Skilled in operation of long-distance pipelines and related activities involving transportation and fuels.

E. *Sales*—Accustomed to selling on large-volume, long-term contracts. Little experience in merchandising or highly competitive selling.

F. *Technology*—Essentially based on mechanical engineering. Hydrocarbon content of gas lends familiarity with certain processes of the oil industry.

A pipeline's risk therefore appears to be minimized if the following factors are emphasized in its diversification program:

1. Familiarity with energy
2. Familiarity with pipeline operation and transportation
3. Familiarity with oil production and processing
4. Experience in raising large sums of money

These relative weaknesses must also be weighed:

1. Lack of familiarity in manufacturing
2. Lack of experience in merchandising
3. Lack of familiarity with raw materials outside the oil and gas industry.

"In view of these facts, it is not surprising that many gas pipeline companies have gone into the oil business. Of the eight largest such companies, all have producing subsidiaries or divisions. Of these, four have refining operations and two engage in retail marketing of petroleum products. At least five of these pipeline companies have varying interests in petrochemical projects, reflecting the utilization of joint- or by-products. On the other hand, some natural gas companies have ventured further afield from the pipeline business, at greater risk in the hope of greater return. Examples of such diversification are ventures into life insurance, real estate, rocket fuels, rare metals, sulphur, buggies, gas lights, cement and boats.

"The connotation of transportation service is inherent in a gas pipeline; therefore, diversification into those activities which also involve transportation service functions would emphasize a general strength found in gas pipeline operations. An example of this is the pipeline transportation of a product other than gas."

And in conclusion, Mr. Thagard stated: "Based on the number of pipeline companies diversifying into

Analysts are shown on stairs leading to drilling rig platform. This flying field trip took the group to a well being drilled near Lafayette, La., and later to the company's absorption, distillation and separation plant in the Rayne field.

the petroleum and chemical fields, these areas of diversification are generally acknowledged to be logical and appropriate. What other areas may also be appropriate for a particular company must be determined from the objectives and purposes adopted by its management. If a diversification program achieves the objectives of the particular management of a company, it is successful and appropriate for that company. In the ultimate analysis, the investor, through his choice of company and management, chooses the type of diversified or non-diversified activity which suits him."

AUTOMATION AND THE FUTURE

A. J. Shoup, vice president and chief engineer of Texas Eastern, spoke on "Pipeline System Design," a talk which dealt most provocatively with the future, specifically the next decade. Excerpts from his talk follow:

"Economies and improvements in the transportation of natural gas in the future will be sought in many areas and through many devices. One of the most important of these devices will be automation. The natural gas transmission industry, everywhere, is becoming aware of the need and advantages offered by the science of automation. The systems of gas transmission companies, physically, extend over great distances, but their operations and dispatching are controlled from central locations. These centers, already, are constantly being supplied through some form of communication with the basic information required to operate the pipelines. As a result, it will be very easy and natural for the industry to adapt itself to automation and operations based on centralized control.

"Basically, the fully automated system will provide for the control of the entire pipeline by means of a centrally located digital computer-controller, which will serve to continuously monitor all compressor stations, purchase, and sales metering points. The computer-controller will be connected to all operating stations on the pipeline by means of highly reliable microwave or common carrier facilities. Each individual compressor station will be designed to be an independent and fully automatic entity which will rely on the central computer only for the necessary control information to operate most efficiently as part of the over-all pipeline system.

"In its most sophisticated form, the control system will be completely capable of predicting and controlling the operation of the entire pipeline facilities and all of its related gas supply and sales requirements, taking into account load factors, seasonal, daily and hourly demands, the availability of gas from other sources in the system, the relative economic advantage of purchasing gas from one field versus another, the considerations of firm versus interruptable load requirements and many other economic considerations which have heretofore been impossible to incorporate in the minute-by-minute and hour-by-hour operation of any pipeline.

"With the proper operating, analytical, and cost data available to it, this computer-controller system will not only operate the pipeline at its maximum efficiency at all times (thus increasing thruput for increased revenues and saving fuel costs), but will also provide the operating companies and their managements with all necessary analytical and accounting data concerning its operations on a current basis, rather than as history. Automation will lead to other direct economic benefits. There will be a direct reduction in the number of operating personnel required at the compressor stations. This will reduce actual labor costs. Elimination of operating personnel at the stations will eliminate the need for personnel camps at the compressor station sites. A conventional camp of approximately five houses costs about $125,000 and its investment, as well as subsequent maintenance charges, will be eliminated.

"All of the technical components and equipments of an automatic system are available and have been tested. Numerous companies have

HISTORICALLY SPEAKING

Hayden J. Upchurch, vice president of Texas Eastern's Land Department, spoke authoratively about his subject and evoked loud laughter with the following story:

Some of the requirements made by an attorney in his title opinion often test the patience of a landman.

An attorney in New Orleans was asked to approve title to the land on which a high price oil and gas lease was being purchased and in the course of his opinion made this comment and requirement:

"Let me compliment you on the able manner in which you have presented curative matter covering this property although you have failed to account for its use earlier than the year 1803 and before final payment can be approved, it will be necessary to establish title prior to that date."

After enduring a short cooling off period, the poor belabored landman answered as follows:

"The letter in which you request that the Thibodeaux title can be extended back from the year 1803 has been received. Please note the historical fact that Louisiana was purchased by the United States from France as a part of the Louisiana Purchase in that year. France acquired title to the land by right of conquest and negotiation from Spain between the years 1762 and 1800. Spain based its claim on the right of discovery by an adventuresome sailor named Columbus who had sailed from Genoa seeking a new route to India with the blessing of the then reigning Queen, Isabella. The good Queen, being a pious woman and even then aware of possible title troubles, took the precaution of securing the blessing of the Pope upon the voyage before she sold her jewels to finance the trip. Now the Pope, as you know, is one of God's representatives, and since God made the world, I feel sure you will agree that it is safe to assume that He also made that part of the United States which is now called Louisiana. However, I find it impossible to go back further than this and hope to Hell you're satisfied."

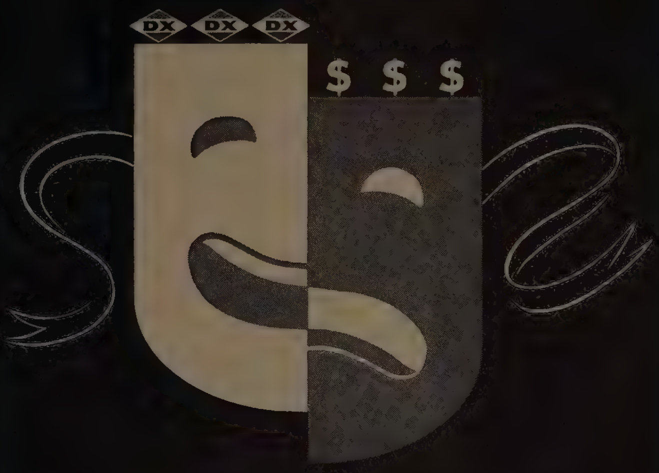
achieved remote operation of unattended satellite stations. One gas company effected automatic operation of five stations remotely controlled from a central dispatch headquarters in 1957, and is in the process of automating five additional stations on the same line this year. The oil pipelines in particular have been quite successful in developing the automatic pipeline. The gas industry is alert to all automation developments and will incorporate such developments as have shown economic promise, operational efficiency and labor force stability. Another device for obtaining economies in the transportation of natural gas in the future will be to obtain better materials for construction of the pipe itself.

"Research and development work relating to pipeline coatings, both external and internal, give promise of future savings in the cost of transportation. The primary purpose for an internal coating for a gas transmission line is to provide a smoother and clearer pipe wall surface than bare steel affords. With a smoother surface, friction is reduced and theoretically a greater thruput is possible with the same installed horsepower.

Outdoor Compressor Stations

"Many new construction techniques to reduce the cost of plant are being studied and will be realized by the industry in the near future. An important one, from the standpoint of compressor station construction, is the use of the outdoor type compressor station. Texas Eastern is currently designing two 15,000 horsepower single unit electric motor driven centrifugal compressor stations for use in outdoor service without conventional building surrounding equipment. Elimination of the building will save in the neighborhood of $60,000 in construction cost at each station.

"The natural gas industry will constantly strive to provide better service to its customers. Providing natural gas for seasonal peak demands is a premium service much needed. The industry has utilized conventional underground gas storage fields, when they can be found, as a



there's nothing funny about other folks' money

One notable economic freedom remains, even today: a man's freedom to do as he likes with his own money. He can spend it on pleasure trips . . . give it away . . . even risk it in a search for minerals on the moon. All these he can do if it's **his** money. But corporate stewards, handling other folks' money, are not entitled to such free-wheeling individualism.

At Sunray, corporate-wide plans and activities are directed toward one goal: the studied, productive employment of investors' funds. Today, this means diversification, new processes and new products. We have always been more interested in making our funds **produce** than we have in confining ourselves to one narrow area of activity. Because of this flexibility, we believe that our faith in the long range profitability of the oil industry is fully justified.

A single purpose, a single aim: profit . . . that's the goal here at

The Oil Company With Growing Plans!

SUNRAY DX
MID-CONTINENT OIL COMPANY
GENERAL OFFICES . . . TULSA

Assembly at Shreveport

Literally "cracking the whip," to assemble Financial Analysts attending the Natural Gas Seminar, Texas Eastern's Vice President James Hargrove found his whip missing on the second day. There was considerable speculation as to who, during the still of the night, might have "appropriated" same. However, assembled Analysts exonerated themselves, at the closing session, by presenting Leader Hargrove with a ten-foot bullwhip "For training Financial Analysts" at future gas seminars.

means of providing this service. Another manner of accomplishing this storage is to liquefy the natural gas and store it in liquid form.

"Liquid type storage will be an important key in serving peak winter loads, because it can be constructed by man near the markets and is not dependent upon naturally formed storage reservoirs.

"These few devices mentioned: automation, improved pipe steels and materials, external and internal coatings, outdoor type compressor station installations, more efficient prime movers, and liquefied storage, are but a handful of the new techniques which will be available to the natural gas industry for controlling construction and operating costs of an ever expanding service over the next decade. Technological advances will be available; and, if applied with vision and skill, the economies to be realized from them will surely contribute measurably to the profitability and general economic health of the industry."

Goodrich on Pipeline Solids

B. D. Goodrich, senior vice president, gas division, spoke at the opening session on "The History of the Natural Gas Industry," and on the third day of the Seminar gave Analysts some interesting observations about "Solids Transportation." He also stated that Texas Eastern is planning a 50-50 operation with Consolidation Coal Co. of Pittsburgh, to mine and transport coal (in a slurry) by pipeline. Consolidation has the free world's greatest coal reserves.

Other Texas Eastern officials who addressed the Natural Gas Seminar were: C. W. Marvin, assistant chief engineer; Gordon Jennings, supervisor, Plans and Research (Engineering Dept.); G. H. Ewing, assistant supervising engineer; E. T. Robinson, Jr., general superintendent, Gas Operations Dept.; John Jacobs, vice president, Gas Supply Dept.; W. E. Caine, vice president, Gas Sales Dept.; S. P. Osborn, comptroller; H. A. Hemphill, vice president, Production Division; Ben F. Curtis, chief geologist; H. R. Moseley, general superintendent of drilling; and W. H. Justic, manager, Production Dept.

Also: J. E. Bixby, treasurer; M. K. Neptune, senior vice president, Little Big Inch Division; John F. Lynch, senior vice president, Oil Division; and Jack D. Head, vice president and general counsel. E. R. Cunningham, vice president, Operations Dept., was slated to talk on "Pipeline Operations," but he was ill and not in attendance.

And while credit for the excellent programming undoubtedly is shared by all of Texas Eastern's management, Mr. Hargrove pointed out that the day-to-day yeomen work could be largely credited to R. J. Fitzpatrick, director of Public Relations, and J. L. Eager, assistant public relations supervisor.

PIPELINERS OF ENERGY SPORT 'DIVERSIFICATION'

But all was not about the greatest treasure hunt of all times (searching for natural gas—what else!) and the concomitant problems involved. For both Analysts and guests diversified classroom lessons with a display of prowess on the field of sport. The choice included golfing, sailing, tennis, fishing, trap shooting, and the ever-pleasant swimming. At least two Analysts joined management in the first five sports, and practically all wound up in the big splash.

The author of this article, accompanied by The Boston Society's Beryl Bunker and The New York Society's Robert H. Stovall, decided to analyze trap shooting. Their coach: Texas Eastern's gun-slinging Gene Santell, a crack shot at any range. And for rank amateurs (who hardly knew the difference between a 12-gauge shotgun and a pipe dream), their performances were mixed. Sharp-Shooter Stovall, in one round of 25 blasts, "killed" 23 birds. Mrs. Bunker concluded that investing life insurance funds was less hazardous. And the other gun-toter, after shattering an undisclosed percentage of 125 clay pigeons, hobbled back east with bruised arm and shoulder. Reports from other sporting Analysts indicated fun all around.

Then, came the end of each day's sessions when student Analysts and academic pipeliners convened in the hospitality suite (a poolside cabin) to pause, relax, refresh, be sociable, and to check on "what's being heard in the best of circles." Motel Manager Jack Tullos, Jr.'s men-in-white dispensed Dixie's famed Planters Punch and the Cajun country's Bayou Swizzle. Each day was reborn.

INTERNATIONAL HARVESTER COMPANY

The Directors of International Harvester Company have declared quarterly dividend No. 181 of sixty cents (60¢) per share on the common stock, payable July 15, 1960 to stockholders of record at the close of business on June 15, 1960.

GERARD J. EGER, Secretary

Interlake Iron

DIVIDEND No. 64

Interlake Iron Corporation, Cleveland, has declared a dividend of 40 cents per share on its common stock, payable June 30, 1960, to stockholders of record at the close of business June 15, 1960.

Vice President & Treas.

Maker of Iron and Ferroalloys

GLASS: horizons unlimited

Consider the unique qualities of glass and you know why this versatile material has a glowing future. Glass, by nature and through the magic of modern research, is exceptionally strong, perfectly transparent, resistant to corrosion and practically ageless. Plate and sheet glass are processed and fabricated into a variety of products in many shapes and colors. Fiber glass is made into textile yarn, insulation mats and roving for reinforced plastics. The extensive research program of the Pittsburgh Plate Glass Company continues to improve the qualities of glass and to develop new ones, so that from PPG comes a broad range of products that give light, beautiful, practical glass an unlimited future in ever-expanding markets.

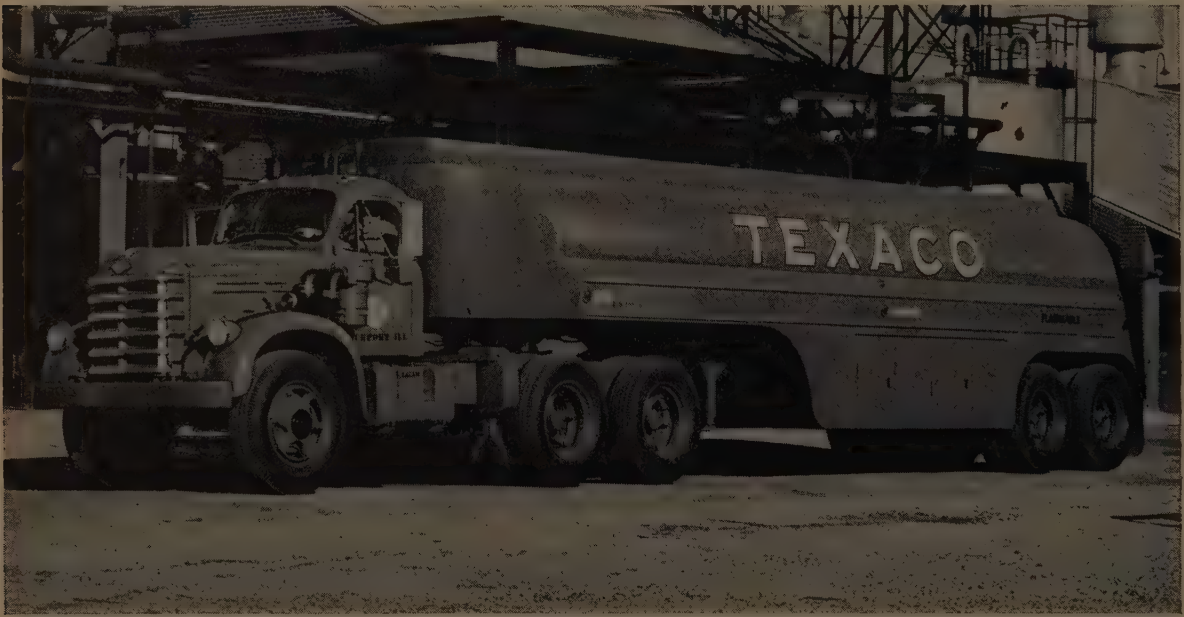
Pittsburgh Plate Glass Company

Paints • Glass • Chemicals • Fiber Glass

NEWS ON TEXACO PROGRESS

From two horses to 200-horsepower

YESTERDAY—"petroleum" was primarily kerosine, the fuel that fed the lamps and cooking stoves of America. Sold by local grocery and hardware merchants, it was delivered to them once a week. It was Texaco that first met the urgent need for twice-weekly deliveries, with its horsedrawn tank wagons. Daily deliveries soon followed.



TODAY—the chief product of petroleum is gasoline, moved swiftly from storage point to market in giant, modern tank trucks. Today Texaco's fleet of red trucks serves more than 39,000 Texaco Dealer stations across the nation. Alert marketing operations, based on service to America's motorists, have contributed to Texaco's continued growth.

TEXACO

Investment: One Year's Study Return: Extremely Profitable

by Sylvia Auerbach

SITTING WITH A JUDGE on the bench; getting thrown out of a union meeting; interviewing editors, lawyers, executives, Treasury officials; moaning at being overworked, Monday through Friday; and then begging for a week-end assignment so I could get a byline on the economics page. These were some of the returns on my time invested at Columbia University's Graduate School of Journalism, as the first winner of the Helen Slade Sanders Scholarship.

The avowed purpose of this school is "to train its students in the arts and skills of communicating," and in addition, "to provide an understanding at all times of the substance they are communicating."

This is how the program worked: To learn the "arts and skills" I had intensive drills in newswriting, copy editing, headline writing, newspaper makeup. This was followed, later, by a chance at all the jobs on the student paper from reporter to managing editor. All were done in a set-up which resembled, as closely as possible, a working newspaper office. That meant rigorous deadlines, insistence on accuracy—"middle initials for all the prime ministers, please"—and the faculty member in charge was worthy of an Academy Award for his portrayal of a tough city editor.

To acquire an understanding of basic news issues, I attended seminars where these issues were discussed by outstanding men in the field. The topics covered were: national and international affairs; the crisis of the city; labor and management; atomic energy and control; freedom and security; and courts and constitutionalism. Preparation for the seminars included daily reading of several newspapers, of course, plus texts prepared by the men in charge, and textbooks such as "Explaining the Atom"; "Economics of Labor Relation"; "Governing Urban America", and others.

(Add this reading to a 9-5 daily schedule, two and a half hours of commuting, and several writing assignments weekly, and there wasn't much time left for loafing).

The most surprising things happened on general assignment reporting. The day I was covering a fairly routine arraignment, for instance, a friendly lawyer mentioned to the judge, during a recess, that I was from Columbia's journalism school. When the recess was over, the court clerk beckoned to me. I approached the bench, convinced I had violated some rule and hoping that at least it would make a good story for the page we were printing that day.

The author interviews Vermont Royster, Editor of The Wall Street Journal

The judge was convinced, however, that I'd make a much better reporter if I saw life from his side of the bench. I spent the morning hearing testimony, and having its legal implications explained by the judge, while we waited for the next prisoner.

A Taste of the Real Thing

Union men are not so trusting. On the day I was assigned to "find out the situation" on a threatened strike in New York City, I managed to track down the location of a union meeting where members were discussing the proposed strike. The door was open; I walked in. And I was getting an exciting exclusive story, until a wire service reporter also responded to the lure of that open door. He asked me what he'd missed; I leaned over to tell him, and in about one second we were both hustled into the hallway. Even though I produced all kinds of credentials, from press card to driver's license, I'm sure the men are still convinced I was a company spy.

The course I liked best—not surprisingly—was the seminar on economic and business writing. John Foster, the professor in charge, encouraged us to use our initiative and go out and "dig up" our own assignments as often as possible. The group was small, (nine persons), serious, and congenial. We had an interesting extra course, "Business in a Dynamic Economy," taught at the graduate level by professor Richard Selden of Columbia's Business School faculty.

Early in the year we asked Professor Foster if we could go through all the motions of publishing a financial page, short of actual printing, and he was delighted

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Sylvia Auerbach is the first student to win the Helen Slade Sanders Memorial Scholarship for financial journalism study at Columbia University's Graduate School of Journalism. This scholarship was established in 1959 by The National Federation of Financial Analysts Societies. Winner Auerbach was asked, by The Journal's editor, to write a short article about her activities and impressions.

with the idea. Two weeks of each month, therefore, we had guest lecturers from such publications as, *The New York Times, The Wall Street Journal,* and *Business Week.* Or, we went on field trips to such places as the Stock Exchange, the university's cyclotron installation, an electronics company.

On alternate weeks, each of us rotated the job of editor, making assignments, arranging for pictures, planning the page layout, etc. We were quite excited when two of our pages were printed in the school's own printing laboratory, and our work was complimented by members of the faculty. (In fact, in the privacy of our own little seminar we spent at least 15 minutes "admitting we were great," and we promptly formed a permanent alumni society for the economics writers).

Here are just a few of the stories I wrote during the year; some were assigned, and some, like the interview with Vermont Royster, editor of *The Wall Street Journal,* were my ideas (see photo):

A news story on the opening sessions of the American Management Association's Sixth Data Processing Conference; an analysis of the effect on the U. S. economy of the outflow of gold; a feature article on "The Price of Money"; an appraisal of New York State's budget from a taxpayer's viewpoint; and a column of news and gossip about the advertising world.

The school tried an experiment this year, by sending members of the class as "interns" to various newspapers, magazines, advertising agencies, and radio and TV stations throughout the country. I was assigned to the financial section of *The New York Journal-American.* The staff accepted me as one of them, and I had a fascinating and enlightening week going around with reporters on their beats, and working with the men on the copy and make-up desks. Since I had been doing just this kind of work at Columbia, it was completely natural for me to slip into the actual world of newspapers.

And it was exactly this feeling of naturalness that was ultimate proof of the value of the school's program and training.

In retrospect: Columbia's Graduate School of Journalism has a superb faculty. And not only are the professors "men of letters"; they can write, and — of immeasurable value — they instill the desire and the know-how to write into their students. The result: a most stimulating and rewarding year, one I'll never forget.

We welcome the future and prepare for it

Oak Creek power plant south of Milwaukee, showing a sixth unit of 275,000-kilowatt capacity now under construction.

Construction of additional capacity at Oak Creek is part of our welcome to the years ahead. When Unit No. 6 is placed in service toward the end of 1961, capacity of the plant will be more than a million kilowatts. Total dependable generating capacity of the 24 steam and hydroelectric plants in the Wisconsin Electric Power Company system will be 1,925,610 kilowatts.

Our operating area is marked by a wide diversification of economic activity — including modern electrified farming as well as the business and manufacturing activities of many small communities and large industrial centers.

In 1959, sales to residential, farm, and small commercial and industrial customers accounted for 69.4 per cent of total revenues from electric service. Sales to large commercial and industrial users produced 24.6 per cent of total electric revenues.

We welcome the future with a continuing expansion program which recognizes that power and progress go hand-in-hand.

WISCONSIN ELECTRIC POWER COMPANY SYSTEM

Letters . . .

Well Done—New York

Editor:

I should like to take this opportunity to thank the hard-working members of The New York Society for the excellent way in which they prepared and ran our convention this year. My wife, attending her first convention, was thrilled with the Ladies Program, and the Pennsylvania Railroad-U. S. Steel-Philco field trip. For both of us it was a time of warm hospitality and a never-to-be-forgotten experience.

Walter D. Silcox
The Boston Society

* * *

Convention Observations

Editor:

I would like to submit the following observations on the recent annual convention of the National Federation of Financial Analysts. I enjoyed it thoroughly and thought the paper forum to be particularly outstanding and the RCA field trip was certainly stimulating to the imagination. As always, the opportunity to meet with Analysts from other cities is a most important by-product of these affairs.

I think this latter point could well be carried in mind for future conventions in New York. Clearly this city attracts the largest possible attendance and probably on no other occasion is there as large a gathering of top industry analytical specialists. I feel it would be particularly rewarding if some way could be devised in which certain of these individuals could be brought to participate in open discussion.

Perhaps New York has a unique opportunity in this respect. But if conventions are to be held there with greater frequency than in other cities, I would imagine it will become increasingly difficult to provide new and different field trips to hold the members' interest.

Irvin McD. Garfield
Boston, Mass.

* * *

Thank You Dr. Van de Steeg

Editor:

Congratulations on your fine magazine! I have just recently become a subscriber and find it one of the best and most interesting financial publications that I receive.

If it is permissible to request or suggest articles, would it be possible to have one sometime on Short Interest Ratio and its relation to market action? It would seem to me that an article of that nature would be very interesting.

Thank you for your fine publication and I will certainly continue to look forward to each issue.

Dr. R. C. Van de Steeg
Alexandria, Minn.

* * *

Drawings Helped to Clarify

Editor:

As a long-time admirer of Nicholas Molodovsky's pertinent market observations, I must say that I was somewhat amused at the drawings which accompanied his article in your May-June issue. However, they were very apropos and helped in making his meaning clear. I've noted that many other business and financial publications often use such drawings. This letter isn't necessarily for publication. I just wanted to make a point.

Edward G. Whitsby
Fort Wayne, Ind.

(Glad you made your point; and we're happy to publish your letter—Ed.).

* * *

How About It?

Editor:

While I know that it's easy to criticize, I would like to bring your attention to a matter that has puzzled me at several of our Annual Conventions. And that's the lack of prints of speeches that are available. It's impossible to attend more than one forum at a time (or even always to be present at a general session). Yet, it would help to have such copies available. I discovered, at the New York Convention, that copies were available for the press, but that was all.

John Steiger
Tulsa, Oklahoma

(While we believe that Reader Steiger has a point, we do happen to know that Society press committee members make a great point of having such copies available; but circumstances — too numerous to mention here — make it impossible to have copies in sufficient numbers. We do know that at both the Montreal and New York Conventions, members were invited to "help themselves" after the local press had been first served. It would be somewhat embarrassing not to have copies for the press in "The Press Room." Still, other Societies in forthcoming years, undoubtedly, will give this further thought—Ed.).

IN MEMORIAM

Malcolm G. Dodge, 60, a vice president and director of Coffin & Burr, Inc., Boston, died April 22. He was a member of The Boston Security Analysts Society. He was also a director of Time Finance Corp.; Keyes Fibre Co.; Bowdoin Square Garage; and Cambridge Garage Co. He is survived by his wife, Gleneita M., and two daughters: Miss Martha Dodge and Mrs. John Atkinson.

Theodore D. Montgomery, 54, vice president of the S. T. McKnight Co., Minneapolis, died April 9. He was a member of The Twin Cities Society of Security Analysts, and a past president of that organization. Survivors include his wife, Helen; a daughter, Kathrin; a son, Rodger, all of Minneapolis; and a brother, Clarence of Buffalo, Minn.

(Editor's note: Though somewhat late, we've just learned of the death, last November, of Russell K. Rowley, 46, resident manager of Eastman Dillon, Union Securities & Co., Cleveland. He was a member of The Cleveland Society of Security Analysts. Survivors are his wife, Alice, and a son, Charles).

FIFTEEN YEARS AGO IN THE JOURNAL

"We have no scoring system for Security Analysts, and hence no batting averages. Perhaps that is just as well. Yet it would be anomalous indeed if we were to devote our lives to making concrete recommendations to clients without being able to prove, either to them or to ourselves, whether we were right in any given case. The worth of a good Analyst undoubtedly shows itself decisively over the years in the sum total results of his recommendations, even though precise criteria for evaluating them be lacking. But it is unlikely that security analysis could develop professional stature in the absence of reasonably definite and plausible tests of the soundness of individual or group recommendations. Let us try, tentatively, to formulate such tests."

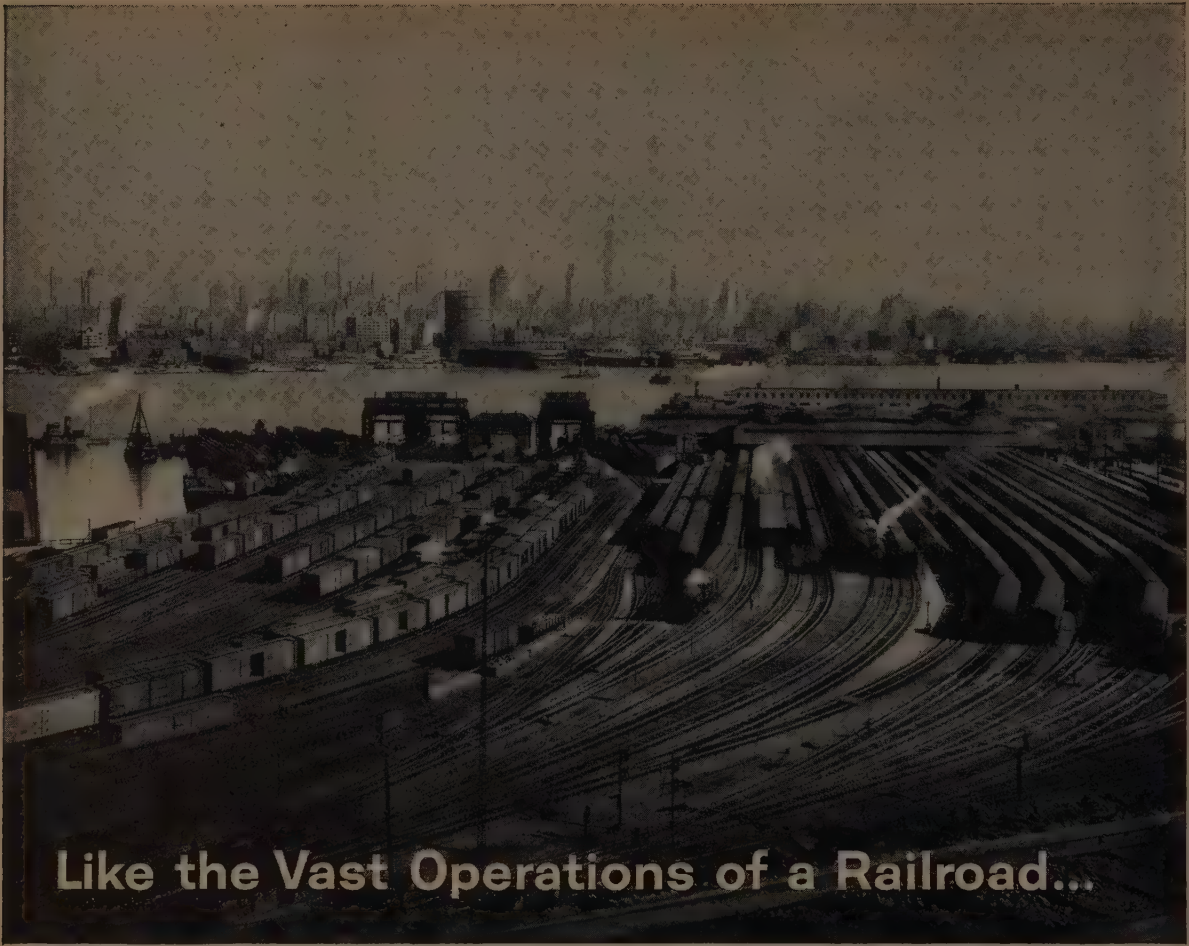
—Anonymous

* * *

"Investors will not find the Dow theory a satisfactory mechanical system for buying and selling securities. Admittedly, trading techniques applying the fundamental principles of the Dow theory have been developed which have stood the test of time. And many traders, intelligent enough to temper principles with judgment, will continue to make worth while profits following the Dow theory — but not investors who take a mechanical point of view, and buy and sell stocks only when major turning points are confirmed by the Averages.

"I cannot believe that Charles H. Dow, or his disciple, William Peter Hamilton, would countenance much of what is written and done in the name of the Dow theory. These men were too realistic! They were trying to develop a systematic logical approach for analyzing the movements of the stock market and their implications, both in terms of the probable future and as a barometer of business."

—William F. Edwards



there's more to Cities Service than meets the eye!

Railroads cover the country with a complex web of tracks. New York is served by 14 different lines . . . Chicago by 33 . . . Detroit by 10. Railroads have always played a vital part in the growth and prosperity of our cities and towns.

America has 394,804 miles of railroad track serving 412 million passengers and transporting more than 2,500,000,000 tons of freight every year. It takes more than one million railroad employees to perform this enormous task.

But few people realize all that stands behind modern railroad transportation.

Likewise, few motorists pulling into their local Cities Service station think of the vast network of people and facilities behind that tankful of gasolene. It takes Cities Service drilling crews in five continents, thousands of miles of pipelines, huge refineries and modern research laboratories to produce gasolene.

And it takes investment . . . over a billion dollars so far to build and maintain these modern Cities Service facilities.

Only in this way can America have what it needs for progress —more jobs and more and better oil products.

CITIES SERVICE COMPANY 50th ANNIVERSARY

Notes on the 1960 Convention

by Jeremy C. Jenks

The Thirteenth Annual Convention, May 14 through May 18, 1960, set new standards in attendance and in the quality of the program. The strong committee, headed by General Chairman George Nelson, organized the convention on the philosophy that while New York could not compete with the wonderful St. Lawrence River cruise, at Montreal, the vineyards and scenery of California, or the gardens and colonial atmosphere that we shall enjoy in Richmond next year, we could make the convention highly professional with emphasis on the wide selection of industry headquartered in New York City, and with the entertainment aspects at a minimum.

The forums featured top executives of American industry. In checking through the list of speakers who appeared on the forums I find that there were five chairmen of the boards, including one man who is also president of his company. There were 18 presidents, excluding the above gentleman, and 14 vice presidents or treasurers. There were a number of other speakers from Government and industry including a state senator, a magazine editor, a member of the Civil Aeronautics Board, a senior partner of one of our leading stock exchange firms, the head of a large trade association and various other talented men holding important positions with some of our industrial giants.

We are tremendously complimented that these busy and knowledgeable men found the time and had the inclination to speak at our convention. The Program Committee headed by Don Macurda, Joe Galanis, John Spurdle, and Ralph Michaud, unquestionably secured the finest possible speakers for the forums. In many cases our members are well acquainted with the corporate executives who spoke and there was a pleasant opportunity to renew friendships as some of our speakers were able to linger at the convention and visit with Financial Analysts attending.

Perhaps the only criticism I have heard of the convention was that there were so many interesting programs going on simultaneously that it was difficult to make a selection as to which forums and field trips to attend. Only for the larger firms, with a number of Analysts in attendance, was full coverage of the convention possible and this perhaps helped to stimulate the record attendance.

The final attendance figures showed 1,178 Analysts attending the full program accompanied by 168 wives who registered for the Ladies Program. In addition, 130 separate dinner tickets were sold for those who could not attend the entire three-day convention but did want to be at the Annual Dinner—a total of 1,476. As a practical matter, the attendance has made new records each time the convention has been in New York. New York is scheduled to have the convention again in 1966, as New York has waived the customary five-year rule in favor of Philadelphia. With nearly 1,500 present at the annual dinner, Tuesday night, the ballroom of the Waldorf-Astoria was substantially full, except for the second balcony. Accordingly, if the rate of growth in the Security Analyst conventions continues, we may be hard put to accommodate all those who may wish to attend the 1966 annual dinner in New York.

Companies playing host to the Analysts who went on the field trips also made it a point to have a wide selection of the top management available both to give talks to the Analysts and also to visit with our members. We are especially grateful to the companies putting on these field trips because they not only contributed effort and time, but they also undertook to transport, feed and entertain visiting Analysts. Unfortunately, the only rainy day of the convention came on the day of the field trips; but it only slightly diminished attendance, and everything went remarkably smoothly—due to the good planning of our Field Trip Committee, headed by Ed Wilson, president-elect of the New York Society, and the splendid organizational help of the participating companies. [Mr. Wilson took office as president June 1].

Jeremy C. Jenks, left, newly-elected president of the National Federation, is shown across-the-street from the New York Stock Exchange, with Lawrence R. Kahn, out-going president of the New York Society.

Special mention should be made of the Ladies Program which featured more in the way of financial meetings than perhaps has been customary in the past. The ladies' reaction to the visit to the Stock Exchange, Manufacturers Trust, and Merrill Lynch, was enthusiastic and, of course, the Circle Line tour of Manhattan — which came on Tuesday, a fair and pleasant day—was a big hit. Mary Wrenn and her committee gave the wives of our visiting Analysts an excellent time.

While the final figures on the convention are not available as yet, it

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Jeremy C. Jenks, a partner with Cyrus J. Lawrence & Sons, is president of The National Federation of Financial Analysts Societies.

was a financial success in spite of the fact that the Waldorf-Astoria is not an inexpensive hotel. The outstanding planning by the hotel staff, the excellent cuisine, and the capacity of the forum meeting rooms, were all factors in the selection of the hotel and unquestionably justified the committee's choice. The activities were run on schedule and the minor emergencies that arose were effectively handled by the Arrangements Committee, headed by Phil Anthony, Gerry Wilstead and our treasurer, Larry Schmidt.

The profit on our New York convention arises primarily from the fact that the informal dinner on Monday, where there was no speaker, was lightly attended as the Analysts preferred to sample some of our fine restaurants around New York, or in the case of our local membership, perhaps have dinner with their families in the suburbs. The Arrangements Committee kept the minimum guarantees low so that the profit from those not taking meals accrued to the convention. Gerry Wilstead, who gave the hotel estimates of the attendance at each of the meals, turned out to be a remarkably good guesser and the Federation is richer as a result.

Analysts conventions are nothing new to the New York Society and we had a great deal of experienced talent to draw on. It should especially be mentioned that Dick Lambourne was generous with his advice and assistance. It was under Dick's leadership in San Francisco that the high standards for the modern conventions were first established. Also, Larry Kahn, retiring president of the New York Society, who had been active in previous national and regional conventions in New York, gave the committee a great deal of sound advice and assistance. Ed Holt, who handled the publicity for the convention did an outstanding job. Our thanks are especially directed to the Analysts who organized the forums and managed the field trips. Ralph Geer not only organized our excellent drug forum but also was chairman of the Union Carbide and the Eastman Kodak field trips. Jane Brett organized the construction forum and also was chairman of the U. S. Gypsum field trip. There are so many people who made a great contribution to the convention that unfortunately I cannot fully give credit where credit is due to all our members who worked on the convention.

One of the highlights of the convention was the opening session, which was addressed by our general chairman and Dexter M. Keezer of McGraw-Hill. The annual dinner on Tuesday featured, in addition to the fine talk by Robert Sprague on Electronics and National Defense, a presentation to Messrs. David Dodd and Benjamin Graham of a plaque commemorating the establishment of a Graham and Dodd award for the best article in *The Financial Analysts Journal* each year. The most notable fact about the annual dinner was that the talks were not only interesting but brief; and for the first time since I have been coming to conventions, very few people left before the proceedings were over.

At the directors' meeting, on Sunday, a number of fairly controversial matters were thoroughly aired in the discussion. The proposed change in name of the Federation to *Financial Analysts Federation* was generally approved, but will be submitted to the directors for a formal vote. One question on which there was a great deal of discussion was a proposal to realign the directorship on the basis of proportional representation in relation to the size of the society with the avowed objective of reducing the number of directors. While most directors agree that the concept is a good one, the suggestion proposed by the Executive Committee of starting with one director for the smaller societies, and going up from there, met some resistance. The consensus of the smaller societies was that they should have two directors in order that they have greater continuity of service and experience.

The other proposal, that evoked a good deal of discussion, was whether or not the Federation should provide for admission of individuals into the Federation with certain safeguards to make sure that this would not detract from the membership of the established societies. The thinking behind this is that high standards for admission of individuals to membership in the Federation would be established. Thus, when a number of individuals, in an area that does not now have a security analysts society—such as in most of the Southeast—had been admitted they would form a strong nucleus for the formation of a new society. This would do much to solve the problem of

Hamilton Bolton, left, outgoing president of The National Federation, and a member of The Montreal Society, is shown with Dexter M. Keezer, center, and New York Convention General Chairman George F. H. Nelson. Mr. Keezer, vice president and director of economics for McGraw-Hill Publishing Co., was one of the key speakers.

On to Philadelphia in 1965

Philadelphia was selected by the National Federation of Financial Analysts Societies as the site for the 1965 Annual Convention. Convention cities for the next four years are: 1961—Richmond; 1962—Detroit; 1963—Chicago; and 1964—Houston.

forming strong societies in smaller cities.

The principal alternate advanced was that some of the larger societies might undertake membership drives in areas where there are no societies now and achieve some of these objectives indirectly. However, the possibility of conflicts and the difference in standards of qualification make this proposal somewhat impractical. This matter will receive further study and more definite proposals will be submitted to the directors before the next convention in Richmond, Va.

The high percentage of directors attending these conventions from member societies, and the good humored and intelligently critical approach to the various problems discussed, has been an attribute of these meetings from the earliest days of the Federation. There is no question that we have a great deal of talent, and the problem is how our organization can best draw on the energies and intelligence of the officers, directors and membership.

The Institute of Chartered Financial Analysts

By A. MOYER KULP, *Chairman*
Professional Ethics & Standards Committee
National Federation of Financial Analysts Societies

The necessary steps are now underway to establish *The Institute of Chartered Financial Analysts.* Directors of The National Federation of Financial Analysts Societies have enthusiastically approved the revised report of the Professional Ethics & Standards Committee, authorizing an Institute of Chartered Financial Analysts. The vote was 69 in favor—none against—and 11 not voting.

As you may recall, at the beginning, the Institute will consist of an Initiating Group (temporary) of Financial Analysts who have served as presidents of member societies of the National Federation prior to June 30, 1960, and who are still active members.

The first step of organizing the Initiating Group is in progress. This is a temporary body and will be dissolved when enough Analysts are ready to take over as a continuing or permanent body. Accreditation for all Analysts, including members of the Initiating Group, will be obtained by taking the required examinations as provided in the revised report of the Professional Ethics & Standards Committee.

A large number of past-presidents eligible have indicated their wish to participate by joining the Initiating Group. A Nominating Committee will be appointed to select candidates for the Executive Council and administrative officers of the Institute will be appointed. The selection of a Director and a Registrar will be a most important step in establishing the Institute on a sound basis and providing the necessary leadership. It will require a man of vigor, ability and stature. The Institute will begin to function as soon as the administrative personnel can be obtained.

The Institute plans to provide reading and study guides designed to enable Security Analysts, and future investment managers, to cope with their increasing responsibilities in a rapidly changing world. There will be ample time for Analysts to do some refresher reading, or study in areas with which they may not be familiar. This can be done while appropriate examinations are being devised and before the dates for examinations are set. Progress will be reported in *The Financial Analysts Journal* and through news bulletins to member societies.

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THE FLINTKOTE COMPANY
New York 20, N. Y.

quarterly dividends
have been declared as follows:

Common Stock*
45 cents per share

$4 Cumulative Preferred Stock
$1 per share

$4.50 Series A Convertible Second Preferred Stock
$1.12½ per share

These dividends are payable June 15, 1960 to stockholders of record at the close of business May 20, 1960.

JAMES E. McCAULEY
Treasurer
May 4, 1960.

*127th consecutive dividend

Pacific Gas and Electric Company

DIVIDEND NOTICE
COMMON STOCK
DIVIDEND NO. 178

The Board of Directors on June 15, 1960, declared a cash dividend for the second quarter of the year of 65 cents per share upon the Company's common capital stock. This dividend will be paid by check on July 15, 1960, to common stockholders of record at the close of business on June 24, 1960.

K. C. CHRISTENSEN,
Vice President and Treasurer
San Francisco, Calif.

P·G·*and*E·

RADIO CORPORATION OF AMERICA

RCA

Dividend Notice

The following dividends have been declared by the Board of Directors:

First Preferred Stock

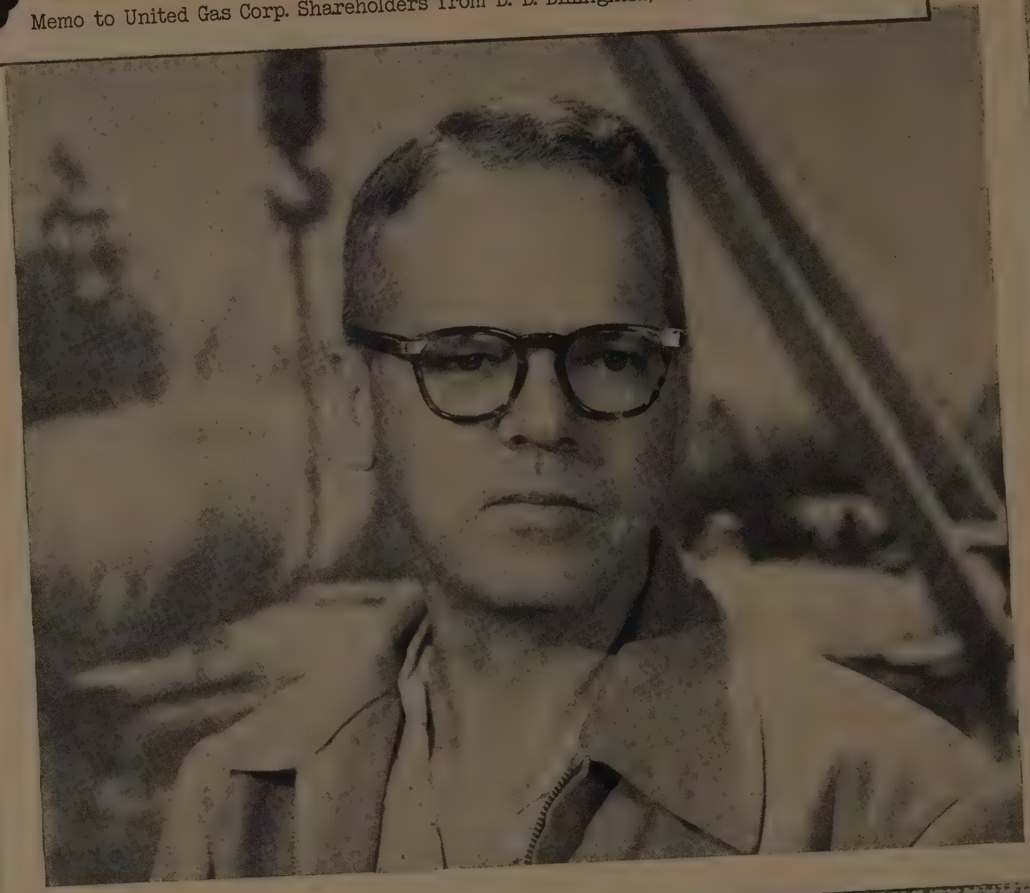
87½ cents per share on the First Preferred Stock, for the period July 1, 1960 to September 30, 1960, payable October 1, 1960, to stockholders of record at the close of business September 6, 1960.

Common Stock

A quarterly dividend of 25 cents per share on the Common Stock, payable July 25, 1960, to stockholders of record at the close of business June 17, 1960.

ERNEST B. GORIN,
Vice President and Treasurer
New York, N. Y., June 3, 1960

Memo to United Gas Corp. Shareholders from D. D. Dillingham, Jr., Exec. V-P, Pipe Line



MORE PIPE LINES...MORE GAS SALES

United Gas Corporation's pipe line subsidiary invested $32,500,000 in transmission facilities during 1959, and now operates more than 10,000 miles of gathering and transmission lines. We tied in 75 additional fields and at year-end had 471 fields serving the system. In ten years our sales jumped from 600 billion to 1.35 trillion cubic feet. Takes a lot of pipe line capacity to keep ahead of a demand like that.

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GAS
CORPORATION
SERVING THE GULF SOUTH
Headquarters, Shreveport, La.

WORLD'S LARGEST HANDLER OF NATURAL GAS

The 1960 Financial Analysts Convention

by Pierre R. Bretey and Warren Burns

A TRULY OPTIMISTIC NOTE for the economy during the next 10 years was sounded by Dr. Dexter M. Keezer, vice president and director of the economics department of the McGraw-Hill Publishing Company, in addressing the opening session, May 16, of The National Federation of Financial Analysts Societies' Thirteenth Annual Convention in New York City's Waldorf-Astoria Hotel.

Dr. Keezer, whose degrees include a Ph.D. and an LL.D., is a former president of Reed College, Portland, Ore., and has been a professor, reporter, editor and author of several books including "New Forces in American Business," published in 1959. He has also served as Deputy Administrator of the Office of Price Administration in Washington, D. C., Economic Advisor of the Mission for Economic Affairs in London, and Public Member of the National War Labor Board.

Pierre R. Bretey, editor of The Financial Analysts Journal, is a general partner with Hayden, Stone & Co. A leading rail analyst for many years, Mr. Bretey holds a doctorate from New York University, and is a past president of both The New York Society of Security Analysts and The National Federation of Financial Analysts Societies. Warren Burns is The Journal's managing editor.

Introduced to the "Lucky Thirteenth" convention by George F. H. Nelson, of U. S. Steel and Carnegie Pension Fund, and general chairman of the convention, the keynote speaker unequivocally stated: "I am convinced that over the next decade we shall experience steady economic growth and prosperity such as we have never seen before. It will also be the most interesting and entertaining period that any of us has gone through."

The speaker illustrated his talk with a series of charts to "prove" his predictions of what lies ahead, based on what has taken place in the past. Before making his prognostications he commented: "People would rather be misinformed about what will happen than be correctly informed of what has happened."

One chart in his talk on "booms and busts," from 1909 to 1939, showed a growth rate in U. S. economy of two percent, and a comparable chart for the period from 1947 to 1960 showed a growth of 3 7/10 percent, or almost double.

"And we shall do better in the sixties than we did in the fifties," Dr. Keezer predicted. "A general expanding prosperity in the United States will be the rule, with our advances based on a healthy growth in all the free world."

Many forces will be at work producing the prosperity that lies ahead, the speaker observed. One of these is the population growth with a staggering increase in the college age group. Labor costs will go up, but power costs will decrease. The average work week will be two hours less by the time 1970 rolls around, he believes.

Another force affecting the econ-

Representatives of 21 of the 24 Analysts Societies, which comprise the National Federation are shown here. Seated, left to right: Peter Ladd Gilsey, Washington, D. C.; Walton F. Cannedy, Baltimore; Norman D. Morgan, president-elect, Washington, D. C.; Luther C. Dilatush, Indianapolis; Perry B. Wydman, Cincinnati; Dwight C. Baum, Los Angeles; Bertrand H. Mallison, Rochester; Richard E. Mayne, Cleveland; John B. Purcell, Richmond; and Robert H. Perry, San Francisco; Standing, left to right: Lawrence R. Kahn, New York; Theron S. Curtis, Jr., Providence; Jack C. Harris, Houston; R. Bruce Thomas, Jr., Dallas; Edwin W. Crysler, Jr., Philadelphia; Neil E. Heikes, Chicago; William C. Goodwin, Twin Cities; Harry W. Anderson, Boston; C. D. Forsyth, Toronto; D. C. Cameron, Montreal; H. F. Langenberg, St. Louis; and Wallace Cook, Kansas City. Representatives from the Denver, Detroit and Omaha-Lincoln Societies were not present.

omy of our nation is the modernization of our plants and equipment, with much of our manufacturing equipment now almost obsolete. There will be a flood of new products, new processes and new equipment. In 1960, he said, 12% of manufacturing sales will be in products not made before and will be up 30% by 1970.

More and more companies are looking ahead and developing long range programs which help spur the economic growth. While capital invested per worker keeps increasing, he stated, the output per manpower keeps increasing also. The present average family income of $5,000 will go to $5,600 by 1965, and to $6,450 by 1970, Dr. Keezer forecast.

"We live in a society where we have optional consumption," the McGraw-Hill executive pointed out. "The purchaser has the option of buying or not. He can take it or leave it. Of course, if he leaves it, we can have a depression. Fortunately, signs do not indicate that in the immediate years ahead he will leave it."

Noting that we have an abundance of all the things we need for a smooth functioning economy, Dr. Keezer pooh-poohed fears of inflation. "Inflation is a fading problem," he said. "In fact, it would take a genius to launch a program of inflation at this point."

'Economics and the Stock Market'

The second speaker to address the members en masse, was J. Eugene Banks of Brown Bros., Harriman & Co., who gave a scholarly talk on "Economics and the Stock Market." The other speaker, Armand G. Erpf, of Carl M. Loeb, Rhoades & Co., presented a meaty diagnosis of the market and the role of the Security Analyst.

Mr. Banks continued the optimistic tone that had been set by his predecessor at the morning meeting, stating that the current slow-up is healthy and that business activity will pick up again in the autumn and continue into 1961.

With charts to illustrate his points, Mr. Banks showed the relationship between corporate profits, the profit margin and the two most widely used indices of business activity, the Federal Reserve Board Production Index and Gross National Product.

"Profits depend on both the level of business activity and the profit margin," he said. "But the record shows that the cyclical swings in profits are geared more closely to the profit margin than to either the Production Index or the Gross National Product."

The current outlook for profits can be summed up in the following statements, Mr. Banks said:

-- Inventories are rising faster than sales. This is shown by the declining tendency of the sales to inventory ratio and the Debit-Loan Ratio.

-- This suggests that the peak rate of inventory accumulation for the current cycle occurred in the second quarter of 1959 at a $10.7 billion rate compared to a $10.6 rate for first quarter of 1960.

-- Profit margins probably peaked in the second quarter of 1959 and are now on downtrend.

-- Corporate profits have probably been in a downward trend since the second quarter of 1959 as the Dow-Jones earnings imply.

-- A higher rate of plant and equipment expenditures as the year goes on, and a higher rate of Gross National Product, and even Industrial Production, is not likely to alter the profit prospect.

Anything that would cause profit margins to widen again could alter the declining trend in corporate profits, the speaker asserted. A speed-up in the rate of inventory accumulation would probably do it. The National Bureau of Economic Research, he said, has shown that the cyclical swings in inventories are one of the most important elements in the cyclical swings in our economy.

Mr. Banks cited instances to show that while the market, during the post World War II period, advanced during periods of rising corporate earnings, the market has not always declined substantially when profits fell.

"Experience shows," Mr. Banks said, "that if a declining trend in profits does not produce a general decline in prices, it does at least produce an extremely selective market. Markets of this character provide great opportunities for Security Analysts."

Analyzing the psychological factors affecting the market recently, the second luncheon speaker, Mr. Erpf, noted that "the public has put the market up nicely on a compulsive buying spree, sparked by the premise of a recovery in business, intensified by the fear of inflation, and tranquilized by the conviction that equities were less dangerous

GREAT OAKS FROM LITTLE ACORNS

To prove that speeches at Financial Security Analysts conventions are not the dull affairs that some imagine, a few remarks that sparkled the talk by Armand G. Erpf, of Carl M. Loeb, Rhoades & Co., can be cited:

"In historic perspective," he said, "it was only yesterday that we made the transition from the croupier to the Security Analyst, and from gambling to intellectuality. Now, this is a salutory development, but a great deal yet remains to be done."

And speaking about gambling on the stock market, he remarked: "After all it is a noble vice, but we have racetracks, and Las Vegas especially, set up to cater to this fun—and there it does not get out of hand to the extent where it might disturb the economy."

Alluding to the hope harbored by many shareholders that a boom will develop so they can unload their shares at a high price, Mr. Erpf told a story about Arthur Vining Davis who had given a block of Alcoa shares to a church. Some years later, it seems, the elders timidly approached the donor with the thought of disposing of the shares after they had risen. Davis replied: "Do you think it is a Christian thing to sell to others that which you consider greatly overpriced?" Chagrined, the elders retreated, retained their shares and have since become a very, very rich church.

than they used to be with a curbing of the business cycle. This compulsive buying movement has now ebbed and therefore the prices of shares tend to sag."

GNP Seen at $515 Billion in 1961

Mr. Erpf said that it was his opinion that during the next year "we will have to be content with an undramatic, somewhat vacillating state of prosperity and abandon the somewhat silly notion that a boom would enable us to unload our shares on others at a fancy price."

The Gross National Product should move toward $515 billion by the end of the year, he believed. He thought there should be no serious deviation by the first half of next year. This, he thought, should suffice to maintain overall corporate profits before taxes in the higher range, $49 billions or so, as against $37 billions in 1958 and $44 billions variance in preceding years.

Mr. Erpf said that he believes that we have now entered the real postwar period, and that the 1957-58 recession and recovery marked the end of the war rehabilitation years.

"We have improved the earnings multiple about 50%, but during the enthusiasm of the past year or so this went even much farther," Mr. Erpf observed. "We are now in the process of correcting some of the overexuberance in applying a multiple to what we believe is a normal earnings trend."

Four conclusions reached by Mr. Erpf were:

1. The psychology of the stock market has deteriorated and the numbers game for the time being is over. There is now appreciation of earnings over the years as against the "fast buck."
2. Although less brilliant, the economic picture is satisfactory.
3. Earnings multiples, while less than the high points, will remain substantially higher than the low appraisals in the decade following the war.
4. In an age of high income taxes, and an inflation of over one percent per annum, an equity position is more desirable than a bond position. Investors in bonds cannot accumulate an estate because of inflation income taxes and because crises invoke inflationary solutions and not deflationary ones.

A modern program for estate building encompasses six broad segments, according to Mr. Erpf. Boiled down, these are: substitutes for bonds, such as group banks, finance companies, life insurance, savings and loan companies; assets at great discount in which it is the job of the Financial Analyst to select the sheep from the goats, and conclude that there are some industries where solid assets are available at a great discount and will in due course over-

Jeremy C. Jenks, partner with Cyrus J. Lawrence & Sons, New York, center, is the newly-elected president of the National Federation of Financial Analysts Societies. Joseph A. Jennings, State Planters Bank of Commerce & Trusts, Richmond, left, is the new executive vice president, George M. Hansen, Keystone Custodian Funds, Inc., Boston, was re-elected executive secretary-treasurer.

Newly-elected officers of The New York Society, left to right: Edward R. Holt, treasurer; Donald B. Marcurda, vice president; Gerald L. Wilstead, secretary; and Edward S. Wilson, president.

come current handicaps and return to some more appropriate value as sound institutions; the conventional companies in the conventional industries, constituting the backbone of equity portfolio; the conventional companies in the foreign field; mass consumption companies, or more particularly, leisure time, higher standard of living stocks; applied science companies where the earnings multiple is subordinated to the gamble on the ultimate breakthrough and where it must be recognized that little institutional support can be expected for these shares whenever the market breaks.

In expounding on the role of the Financial Security Analyst, Mr. Erpf pointed out that "the Analyst has become a vital member in all echelons of the financial community and in all its phases, and is involved in the preparation and selling of securities and in the investigation and purchasing of securities.

The speaker summarized the Analyst's duties and responsibilities in 11 points:

1. He should inveigh against the numbers game—the idea—that the stock market is an exaggerated crap game.

2. The Security Analyst, through his knowledge, his studies, and his recommendations, plays a most important role in channeling the savings of the people to selected industries and enterprises, and this choice by him and by the investing public reflects the versatility and flexibility of a broad consensus, far better than would be possible under a bureaucratic plan.

3. He should educate the public to worry less about the state of the market and more about the state of their own book or portfolio, and devote themselves to the disposition of their funds, comprehending fully the basic hazards.

4. The Financial Analyst fraternity should use its weight to keep common stock values valid, neither frothy on the one hand, nor unduly neglected on the other.

5. The Financial Security Analyst should attempt to influence the creation of so-called circular institu-

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tions by fitting in enterprises and activities most suitable in complementing or improving one facet or another, so that cash flow is increased and long-term research, development and planning programs can be undertaken.

6. Corporations blocked from expanding domestically may have to go abroad, and here the Financial Security Analyst can be an appropriate marriage broker.

7. The Analyst can use his influence to make the annual report a more vital document and not a smooth, slick tranquilizer. He should induce management to undertake real discussions of problems rather than glossing over them.

8. The Security Analyst should be an investment counsellor in a broad sense, and advocate that the investor have his resources allocated in a full spectrum from solid equities to the spices of fine adventure in space and science.

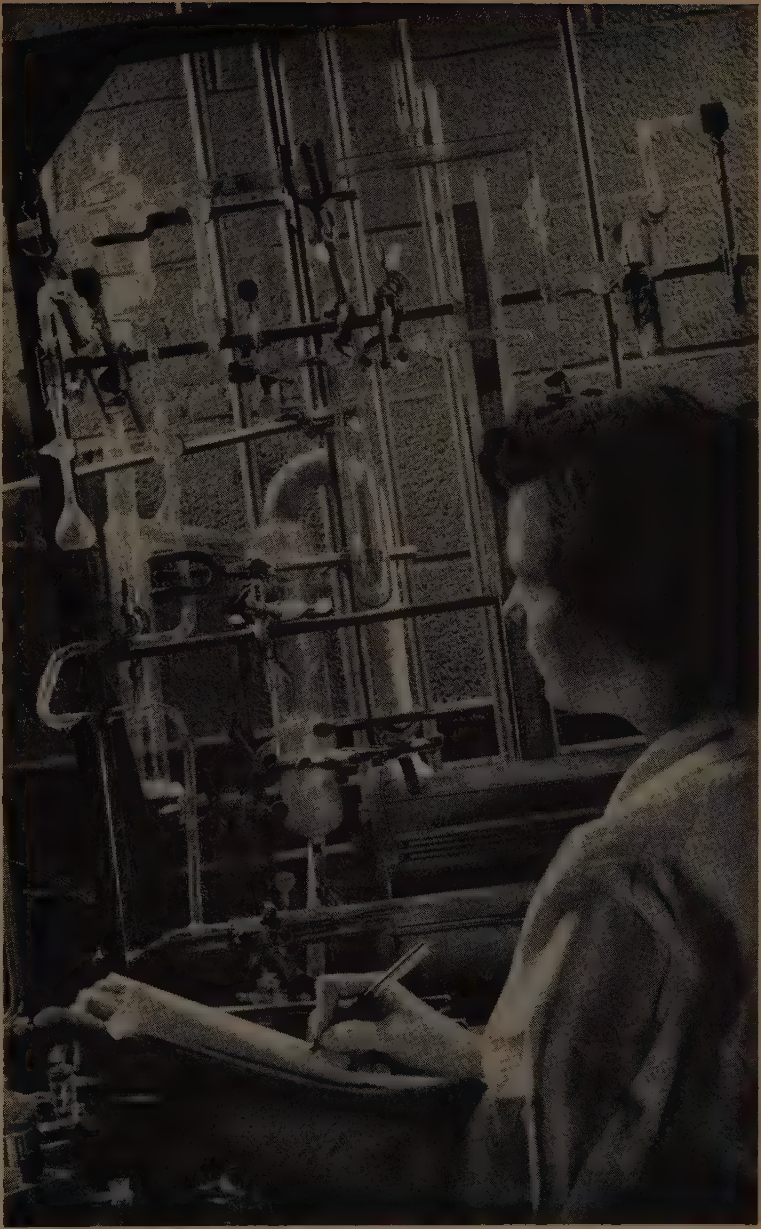
9. The Analyst must teach the public that the value of common stock is not determined by taking the last quarter's earnings, multiplying by four and then by 15, or 25, or whatever the multiple may be.

10. Through the work that has been done by security analysis, emphasis is tending to shift from the pat dividend yield ratio to an earnings yield, and the earnings yield must be refined to look beyond the audit report.

11. Security Analysts have made a few forays abroad and have sown some seeds in the spreading of security analysis as an idea in a few of the capitalist countries where corporate securities are finding acceptance in a growing public investment market. This has been constructive and should be continued. Other efforts should be made to inculcate the concept of security analysis and public reporting in the other industrial areas of the world.

ELECTRONICS INDUSTRY GROWING

An enlightening talk on the ever increasing role that electronics is playing in our national defense was presented by Robert C. Sprague, chairman of the board and treasurer



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NEW ENGLAND ELECTRIC SYSTEM
BOSTON 16, MASSACHUSETTS

Lyndon O. Adams, Northwestern University and a member of The Chicago Society, was photographed reading speeches outside a conference room.

of Sprague Electric Company, North Adams, Mass., chief speaker at the annual dinner.

Mr. Sprague, who is also chairman of the Federal Reserve Bank of Boston, described the electronics industry as "having the doubtful distinction of being the hardest to measure in quantitative terms."

"Although it is now more than 50 years old, employs three-quarters of a million people and is considered by many to be our fifth largest industry," he said, "no one knows for sure just how big it is."

The current size of the industry is variously estimated at from $6 to $15 billion, the speaker noted. He said that in terms of sales of components and end equipment at factory prices, excluding that portion of sales of components eventually ending up in end equipment, the industry is now running at the rate of about $9.5 billion per year. This figure does not include the total various services such as broadcasting revenues, he explained.

"Since Korea, our industry's volume has grown from $4 billion annually to nearly $10 billion, and there have been important changes in the makeup of its sales," Mr. Sprague continued. "What has happened is that electronics for national defense and electronics for business and industry have increased their shares of the total, while the share going into our homes, in the form of radios, TV sets and other entertainment products, has declined.

"Specifically, military electronics has increased from 46% during the base period to approximately 53% at present, and industrial electronics from 11% to 16%, while home entertainment has dropped from 34% to 20%. The remainder is made up of replacement parts."

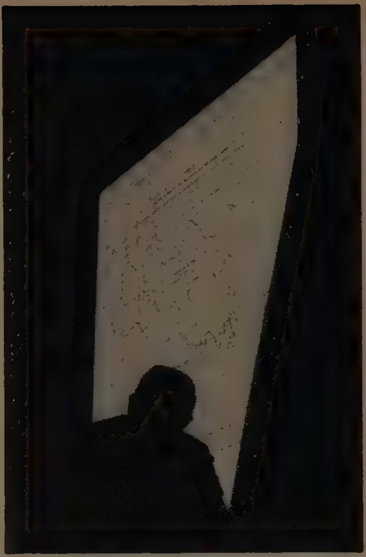
He pointed out that these percentages do not tell the whole story of the tremendous impact of the cold war on the industry, observing that present military electronics procurements of about $5 billion a year is greater than the industry's total sales to all markets in 1950-1953 and that those were good years for the industry, particularly in television.

"This extraordinary upsurge in the value of electronics going into our national defense program has caused some of you, as well as some people in our industry," he said, "to feel that we are excessively dependent upon a substantial increase in total national security expenditures, now running about $45 billion per year, for our continued growth. I do not share that view."

Electronics . . . and Electronics

During the 1950's, according to Mr. Sprague, a marked increase in proportion of money spent on electronics to total defense expenditures has taken place. Estimates show that the percentage of electronics has increased from seven percent of the total at the time of Korea to 14% today. He forecast it would be 20% by 1970. Responsibility for this, he explained, has been the emphasis on missiles and away from manned aircraft. Greater combat effectiveness has resulted.

Looking ahead to the late 1960's, Mr. Sprague said, "I anticipate that the percentage of our business which will find its way into consumer products will continue to decline modestly to about 17%, while the share represented by electronics in industry will show the largest increase and account for something over 20% of the total against 16% currently.



The Waldorf-Astoria's grand ballroom "went into a blackout" during a luncheon session when a large chart was exhibited. Gerald L. Wilstead, secretary of The New York Society, is shown in silhouette.

"Military electronics will contiuue to represent something over half the total. With the further increase expected in the proportion of electronics to total defense spending, it is not difficult to foresee a gain of up to 50% in the dollar value of military electronics, even if total national security budgets remain in the vicinity of $45 billion a year.

"The electronics industry in the 1950's has passed through the most rapid period of technological change in the history of a business which has always been characterized by change," Mr. Sprague observed. "As we look forward to the 1960's, there does not appear to be much prospect of any slackening in the pace.

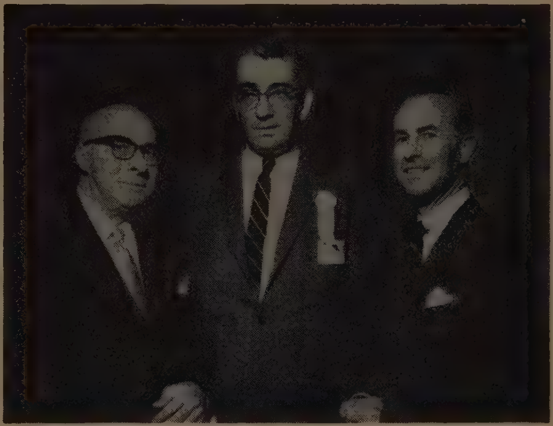
"Those of us who are concerned with operating business enterprises in this industry will have our hands full in meeting challenges of the future. I suspect that those of you who are responsible for substantial investments in electronics will also be faced with many challenging opportunities, and more than a few pitfalls."

Two members of London's Society of Investment Analysts attended the National Federation's Thirteenth Annual Convention in New York. J. G. Blease, second from left, and S. R. Brimblecombe, right, are shown with Alan Cornell Poole, Hemphill, Noyes & Co., holding white slip. Looking on, left, is Alan R. Shaw, president of The New York Society of Junior Investment Analysts.

Julian D. Weiss, left, The Los Angeles Society, is discussing the Convention program outside the grand ballroom with Nathan Bowen, The New York Society.

Priscilla R. Duncan, of The Boston Society, is shown at a luncheon meeting with Alling Woodruff, left, and Dana H. Danforth, both of The New York Society.

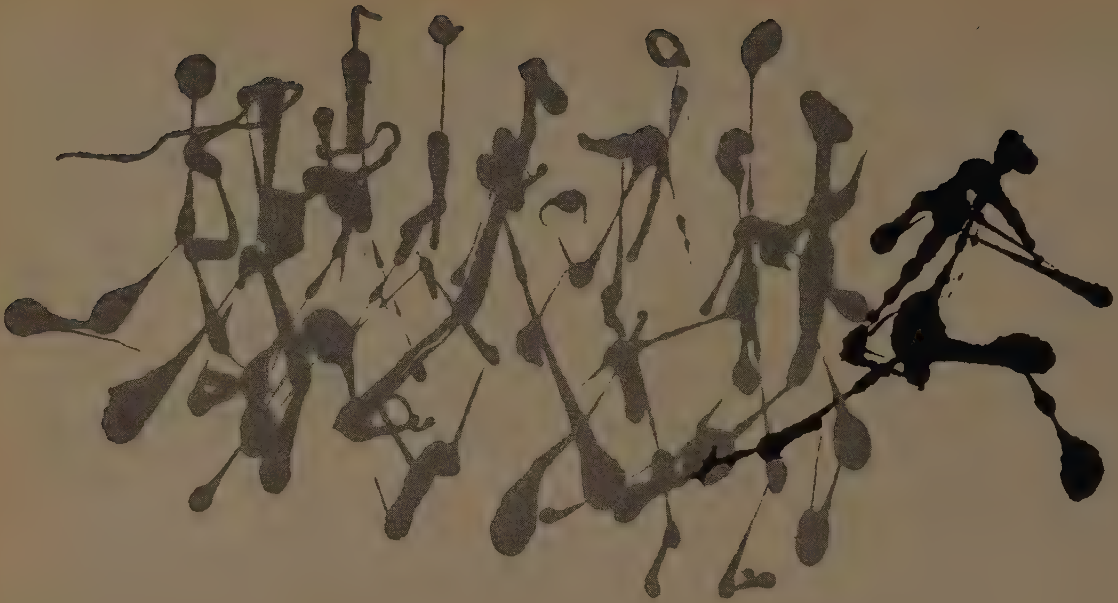
Stephen C. R. Brown, left, is shown with R. B. Dodwell, center, both of The Toronto Society, and John B. Williams, of The Boston Society.



Edward S. Wilson, newly-elected president of The New York Society, center, is shown with Armand G. Erph, left, and Eugene Banks.

Michael Kourday, left, The New York Society, appears to be giving a bit of Gotham low-down to Frank X. Keaney and Alois T. Bolfing, both of The St. Louis Society.

—*Photos by Frank Bauer*



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CONVENTION BUSINESS SESSIONS

Electrical Equipment and Instrumentation

Chairman: Edgar T. Mead, Jr.
G. C. Haas & Co.

As direct proof of the preoccupation on the part of Financial Security Analysts with the world of electronics, more than 500 members of the various societies, or nearly half the convention attendance, met at the Electrical and Instrumentation Forum to benefit from the thoughts of three top officers from three leading manufacturers. This meeting, held in the Starlight Roof Room at the Waldorf-Astoria, may have been one of the largest Forums ever held at an Analyst Convention.

General Electric, as the largest and among the most successful contender in the field of electronics components and instrumentation, was represented by Clair C. Lasher, general manager of the company's Computer Department in Phoenix, Arizona. GE's first experience with a computer line came in 1949, a date now recorded as being near the dawn of practical computers in the United States. During the intervening 10 years, we conclude that the technology of the computer has matured, but by the same token, science and industry has merely scratched the surface of full utilization. So great are the apparent prospects that GE counts 35 companies as competitors, few of them, however, offering full lines or computation systems including all necessary peripheral equipment in itself a fast growing area of electronics instrumentation. As another sign of growing maturity, there is arising a new problem, namely that of the second-hand computer market, and this could become acute with technology moving at full tilt and obsoleting the computer built two or three years ago.

Similar to other new endeavors, there has still to be established a common language for computers. An agreed standard would provide greater interchangeability of equipment, not to mention a firmer foundation for the faster development of new peripheral computer equipment. GE has used magnetic characters; others are trying visual scanning. Far from tapering off, research and development expenditures are expected to rise in the future. We may look for development of instruments far more "superhuman" than exist even today. The problem of the financing of computers is expected to continue to create new burdens on computer makers, and in this area only those who plan ahead can prosper.

Looking ahead, Mr. Lasher foresees that new and undreamed of uses for computers should multiply the demand. Contrasted with a present level of around $1.5 billion, it is therefore not improbable that the market for all phases of business machines including computers may grow to as much as $20 billion in 10 years.

Competition from Overseas

The international field of electronics has come under increasingly closer scrutiny of most Financial Security Analysts. Eye openers are: (1) the incursion of Japanese radios and components into the United States; (2) the fact that American companies are meeting heavier competition abroad as to U. S. export sales; and (3) the existence of generally improving world markets for electronics components and instruments of all kinds have alerted security specialists to overseas activities.

Alfred DiScipio, vice president of marketing for International Telephone and Telegraph, underscored the need for United States-based companies to place their planning efforts on a worldwide basis because: (1) higher consumer income abroad is tending to snowball the growth of investment in plant and equipment; (2) special phases of electronics, such as communications, appear to be in a new and rapid era of development, particularly where traditional methods of corresponding and remaining in touch with others have been totally obsoleted by the new techniques offered by microwave and attendant apparatus; and (3) the present degree of free competition in world markets, furthermore, is an element to be considered. Against this, the American company is obviously faced with a difficult decision of how to serve foreign markets and, if so, to what degree and whether by export, licensing or manufacture abroad.

Historically, the salesman-engineer of a foreign-based company, such as Philips, Siemens, Grundig and others, has grown up with an international view toward trade. For this reason, the European corporation feels at ease selling across its borders — a single and simple factor itself which may place the indigenously-oriented American salesman at a comparative disadvantage. Only a small proportion of American companies, such as International Telephone, have for many years been mainly domiciled as to factories and sales agencies in South America, Europe and other areas of the free world. The awareness of this disadvantage may instill a new orientation in the typical grass roots American company, so that the decision of whether to locate a new plant in New York State or California will have to be recast into the decision of whether to locate the new plant in the United States, England, Germany or Spain.

The prevailing unsettlement of world political affairs in turn focuses on the amount of electronics volume to be generated by United States Government expenditures, a subject discussed by John Rutherford, director of Long Range Planning at Sperry-Rand. In the event of all-out war, in chance that any of us survive the initial onslaught, expenditures could rise to unascertainable heights. Granted a continuation of the brush-fire type of action (which appears to have been a more or less annual occurrence since World War II), we might expect to find defense appropriations rising to $77 million by 1970 — to take an arithmetically projected amount. Assuming no change in conditions, or in the volume of military products required, dollar requirements might be inflated from $41 billion to $56 billion. A more peaceful environment might permit expenditures to be reduced to somewhere in the neighborhood of $34 million (again an arbitrary assumption). It is interesting that the electronics portion of defense expenditures has been moving at a pace 10 times as fast as other military aspects. For instance, the expenditures for purely electronics goods were $2.5 billion in 1955, and $6.0 billion in 1960, an increase of 150%. Ten years from now, it is suggested that this might climb to $10-12 billion, and possibly as much as $15.5 billion.

Although Wall Street does not usually capitalize defense contract earnings at a very high multiple, those companies having to do with defense electronics may be said to have a very distinct if not widely appreciated advantage. Experience has shown that many military products, such as radar, microwave, navigational equipment, weather instruments, medical instruments, and so on, may, with certain modifications become entirely suitable for civilian markets—even to the extent that the military origins may become totally eclipsed. Without being too precise on the matter, it may take from five to ten years for a military electronics component to "turn civilian." It follows that large defense contractors, such as Sperry Rand should be expected to develop a rather comprehensive line of industrial and commercial type of apparatus a few years hence. Then too, the proportion of electronic gear in any given automatic industrial machine should rise significantly during the next decade, perhaps on the order of from 6% to 13% of equipment cost. Taking this evidence into account, it is therefore suggested that the market for industrial electronics might rise from a present estimated level of $2 billion to as much as $6-$7 billion during the next decade.

Considering the achievements and prospects, as indicated by the convention speakers, one must conclude that for the electronics manufacturers, the "Age of Miracles" is very much at hand.

★ ★ ★ ★ ★

Automobiles — Tires — Trucks

Chairman: Alan Kenneth Gage
Parrish & Co.

Byron J. Nichols, group vice president of Automotive Sales of the Chrysler Corp., in discussing "The Outlook for Automobiles in the Sixties," said that continued growth of the suburbs, which make little or no provision for public transportation, plus increased family formations due to war babies reaching marriageable age, and the fact that scrappage rate which is now running at about 4,000,000 units annually and will reach 5-5½ million by 1965, all means that in the years ahead automotive demand will be greater than ever before. Mr. Nichols estimated that well over 6½ million cars will be purchased this year, including about 500,000 imports.

There are now 58 million cars in use and this will increase to over 66 million by 1965. In the late sixties, 8 million car sales years are a definite possibility, and by 1970 we expect to see over 80 million cars on the road, he said. Where there is now one for every 3.03 persons, in 1970 there will be one car for every 2.67 persons. He also felt that the roads could "keep up" with the additional 20 million cars expected to be in use in the next decade, for by 1970 we will still have only 23 cars per mile of roadway, surfaced and unsurfaced; and Great Britain already has a higher ratio than that. Due to the changes in the population mix, plus competition from other leisure-time activities and rise in cost of education, the next decade will probably be dominated by the economy trend. The economy cars are now selling 28% of the U. S.-built market. After the four new compacts come out next fall the U. S.-built economy cars will probably account for 35% of this market.

Another dominant factor in the market in the sixties will be the desire of motorists for personalized and specialized transportation, and increasing numbers of people feel that one car for the family is entirely inadequate and are buying a second, and even a third car to take care of special needs. Multi-car households have increased 67% in the last five years. More than 18% of car owning families—or 13½% of all families—now own two or more cars, and it is possible that by 1975 one car families will be in the minority and a large proportion of families will be using three or more cars. The foreign market, which has grown from 1,700,000 cars per year in 1949, to 5 million in 1959, will be equal to our own sometime between 1965 and 1970.

American companies, through both exports and foreign-based operations, will drive harder to increase their share of this volume. It appears that Americans are showing a preference for our new economy cars over comparably priced imports. As our economy cars appear in larger numbers in other countries, it may well be that citizens of those countries will show the same preference. In their drive to meet the challenges of the sixties, automobile manufacturers will engage in the most intense competition in automobile history, and this is good news for motorists whose needs will be fulfilled at rock bottom prices.

Synthetic Rubber Tires Save $

G. Raymond Cuthbertson, vice president and general manager of the Tire Division of the U. S. Rubber Co., speaking on "The Effect of New Developments on the Tire Industry," stated that American motorists, in 1960, would be paying almost one billion dollars for tires, or

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The increasing need for our products and experience in the vast foreign development of the automotive and allied industries is exemplified by our recent joint venture with Cobrasma in Brazil. Cobrasma-Rockwell's $11,000,000 plant in Sao Paulo has 250,000 square feet of floor space with an annual capacity of 72,000 sets of automotive vehicle front and rear axles. It is Latin America's largest independent automotive parts plant, and will contribute substantially to the development of Brazilia, Brazil's new billion dollar capital city.

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$14 a vehicle, if synthetic rubber had not been developed and subsequently improved by the rubber industry. The annual saving in tire costs to motorists is more than three and one-half times as much as the 262 million dollars spent by the government to build the synthetic rubber industry in the 1940's. The industry has met its challenge in that most people today hardly give their tires a second thought and probably don't even know the brand of tires they are using. Much has been said about the coming 100,000 mile passenger tire. Actually, the 100,000 mile tire is here today but no one is manufacturing it because no one would want to buy it, as people are not interested in investing their money in something which will still be giving good service long after they sell their car.

The industry is still looking for materials with better tread wear, but these materials must also measure up first with respect to softness, skid resistance, heat build-up and many other factors which not only make the tire long lasting but also more reliable and better riding. The low profile tire introduced in 1957 is one of the most important developments of recent years as it makes possible the placing of the tire cords at a wider angle, which gives them greater holding power, thus providing more strength and stability in the tire itself, as well as improving steering and car control. In addition, the side walls flex less, which means less heat build-up and less tendency of failure at high speed. And when less heat is generated, more engine power is available to move a car. With low profile tires, a car can get as much as 13 more miles to a tank full of gasoline. The low profile development will be carried further to take greater advantage of these characteristics. The trend toward a lesser number of plys will continue, as the thinner a tire carcass can be made without reducing strength, the less heat it will generate. Soon Mr. Cuthbertson sees the reduction from four ply tires to two ply tires and reduction in the total number of component parts from 14 to 10. He believes the passenger tire of the future will be built with six or less component parts which will result in considerable cost reduction. The most promising cord material is Dacron. Additional cost reductions will result from reducing the manufacturing prices from 30 strips to five or less, which goal will be reached when the present experimental equipment has been perfected for production.

Trucking Has a Bright Future

J. N. Bauman, president of the White Motor Company, spoke on "The Great Expansion of Trucking," in which he pointed out that in the early twenties the trucks in use in this country passed the million mark for the first time, while today the total has surpassed 11 million, and one out of every ten persons employed in the nation is dependent, directly or indirectly upon the motor truck industry for his livelihood. Even greater momentum is indicated for the next 10 to 20 years. While in the beginning, trucking was a chaotic business it has now become a stabile business, and with it truck manufacturing has gained stability.

In the past 10 years trucking growth has paralleled the growth of Gross National Product. In ton miles, intercity-motor-carrier traffic grew from 52.8 billion in 1939, to 126.6 billion in 1949, and 290 billion in 1959—an increase of 5½ times in 20 years and 2¼ times in the past 10 years. For example, White Motor Company in the past 10 years has more than tripled its sales and earnings. Forecasts of 640 billion truck ton miles by 1969 has been made, and this is more than twice the 1959 figure. Common and contract carriers now haul only one-third of the intercity ton-miles, with the other two-thirds hauled by trucks owned privately by individuals and companies. Private hauling is increasing at a faster rate than common or contract trucks. While the majority of the truck population in the U. S. consists of light trucks, the area of greatest truck growth rate is in the heavy duty classification which reflects the growth utilization of highways to their true potential, and the fact that increased pay loads mean lower costs per ton mile. The new limited access highways are helping the use of trucking as they save in time, distance and effort and, therefore, result in a saving of cost.

Continued population shifts to the West and Southwest, with industry moving away from waterways and railheads, indicates greater growth of trucking. In 1948, there were 787 ton miles of truck transportation per capita. By 1958 this had become 1,490 miles, and Mr. Bauman predicted 2,100 ton miles per capita by 1970. Piggy-backing and fishy-backing are other developments for growth. While air freight is expected to increase 10-fold to 5 billion ton-miles by 1968, it will still only be three-tenths of one percent of the total ton miles anticipated for all forms of freight shipment by 1968. Mr. Bauman also predicted registrations of heavy duty trucks will rise from slightly less than 13% of total new truck registrations in 1959 to almost 25% of such registrations by 1970.

Questions developed the fact that the auto manufacturers are using less Nylon tires on passenger cars now than they did two years ago. Dacron has promise as a tire cord for it has high strength without the flat spotting or "morning sickness" attributed to Nylon. While it is expensive to change to unitized frames, once it is accomplished it results in considerable cost saving plus better product. Seventy to 75% of compact car sales have been in the higher priced models.

* * * * *

The Steel Industry

Chairman: Theodore H. Gerken
Laird & Company, Corporation

The steel industry will be spending about $1 billion annually in the next few years, primarily to increase its efficiency and versatility, according to Logan T. Johnston, president of the Armco Steel Corporation. "Very little of this spending will go to build additional steel making capacity," said Mr. Johnston, "but we will be using our capital funds steadily to improve our productive processes and to introduce a continuing succession of new products.

"The pattern of steel use is changing," Mr. Johnston continued. "As each year passes there is less accent on sheer tons. Fewer tons are doing more things and doing them better. We are not selling tons anymore, but performance. We are tending to replace 100 tons of carbon steel with 90 tons of high tensile steel."

Mr. Johnston pointed out that in the past 14 years the steel industry has paid out approximately 50% of its earnings in dividends to shareholders—"pretty good for an industry that has virtually rebuilt itself in the meantime and gained a good portion of its capital funds through retained earnings." He further emphasized that Financial Analysts could count on the steel industry to grow as the nation grows, at the very least, and to maintain, if not improve, its earning ability.

In furthering this thought, Norman W. Foy, vice president in charge of sales for Republic Steel Corporation, stated that steel, along with most other industries, was facing twin problems of the cost squeeze and foreign competition. "But we are moving aggressively," he said, "to meet those problems and to maintain the upward trend in steel industry earnings."

Mr. Foy pointed out that the American Iron and Steel Institute has recently set up a new permanent group composed of key industry sales experts, called the Committee to Promote the Use of Steel. He is chairman of this group. Studies are under way, by the committee, to evaluate the industry's competitive position relative to foreign steel producers, as well as to domestic producers of competitive materials, such as plastics, reinforced concrete and other metals.

Steel's Position Seen Sound

"In both areas," he said, "the results are encouraging. The advantage of lower labor costs enjoyed by foreign producers, for example, is to some extent offset by their lower productivity. The availability and cost of materials are in our favor, as are our promptness of delivery, with range of technical service and long established relations with our customers.

"Although facing increasing competition from other materials, steel's domestic position is sound, also. Its physical characteristics make it the strongest and most versatile of metals. The industry is also intensifying its promotional efforts through the use of an identifying symbol called Steelmark. The hard sell is on to maintain and improve steel's position relative to other materials."

In discussing current prospects, Mr. Foy said that production is stabilizing at levels closely in line with consumption and that this is a sound situation, "greatly preferable to one of unrealistic inventory accumulation and unrealistic temporary demand."

Dr. Howard S. Turner, vice president in charge of research and development, Jones & Laughlin Steel Corporation, stated that research has been growing rapidly in the steel industry in recent years. "An analysis of the blast furnace," Dr. Turner said, "shows that this workhorse of the steel plant has a remarkable potential for improved performance. As a result of using raw materials richer in iron, and making operating modifications suggested by a new understanding of the blast furnace, considerable improvement is expected. New developments in steel making center on the use of oxygen to speed the refining process.

"Taken together, there are an impressive number of opportunities developing for the profitable application of technology as a means of accelerating the financial progress of this highly competitive industry."

Dr. Turner was recently elected vice president and president-elect of the Industrial Research Institute, Inc., which is composed of the nation's leading industrial research executives representing 172 major manufacturing companies and responsible for annual research expenditures of $1.5 billion.

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The Insurance Forum

Chairman: Shelby Cullom Davis
Shelby Cullom Davis & Co.

An analyst, a lawyer and a salesman probed the insurance business from its three principal angles, fire, casualty and life at the Insurance Forum under the Chairmanship of Shelby Cullom Davis, managing partner, Shelby Cullom Davis & Co., and expressed optimism as to the future.

The respective speakers were: Jack D. Taylor, executive vice president of Phoenix Insurance Co. of Hartford, who spoke on "A Fresh Look at the Fire Industry"; William E. Pullen, chairman and president, United States Fidelity & Guaranty Co., of Baltimore, whose title was "Current Conditions in Casualty"; and Charles E. Becker, president, Franklin Life Insurance Co., who spoke on "A Salesman Views the Life Insurance Industry."

The greatest optimism was expressed by the life speaker. Rising population, increased family formation, larger disposable national income, greater desire for security—all these factors will boost life sales. There are probably too many life companies and many smaller ones who will fall by the wayside. The larger companies are able to reduce costs through automation and will do well particularly when aggressively managed. Because of two Univac's, Mr. Becker's own company is processing three times as much work with the same number of employees as a decade ago. Higher interest rates are proving a bonanza. Franklin Life's insurance in force (all ordinary) has advanced 400% during the past decade, while net operating cash earnings have risen 550%. Its stock is selling around 20 times last year's earnings and does not seem overvalued in the opinion of its president.

Both fire and casualty conditions are better this year

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and fundamental changes are taking place in the property insurance business. Both Messrs. Taylor and Pullen feel that their companies are on the "road back." Rates are now more sensitive to changing loss conditions. Acquisition costs, and particularly commissions, are coming down, as well they must due to competition from companies doing business without agents and on a lower cost basis. Other new merchandising methods are being adopted. Company executives in property are now convinced that their stockholders must be looked after and that earnings must increase. Although there are plenty of problems, there is a will to face and solve them. The days of drifting and waiting for the cycle to change are over.

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Retail Trade

Chairman: J. M. Galanis
Winslow, Cohu & Stetson

Speakers:

- Joseph B. Hall, president, The Kroger Co., "Food Chains, Current Trends and Prospects."
- B. Earl Puckett, chairman of the board, Allied Stores Corp., "Department Store Chains, What Lies Ahead."
- C. H. Kellstadt, chairman of the board, Sears Roebuck and Co., "Mail Order—General Merchandise Chains: Changes and Challenges."

Excerpts of these three talks follow:

FOOD CHAINS (*Mr. Hall*)

In 1953, average annual sales per store for food chains were $530,000 vs. $988,000 in 1959. While the number of food chain units was halved, size of the average store operated (i.e., sales space) was far greater.

Consumer expendable income is the overriding statistic. Other important factors include consumer upgrading and increased demand for "built-in maid service" in the form of frozen and prepared foods. To illustrate the latter, the housewife averaged 5½ hours a day in the kitchen 10 years ago, vs. 1½ hours in today's modern kitchen.

Future emphasis in this business will be more on *presentation* rather than on *operations*. The use of trading stamps (formerly opposed by major chains) has finally been accepted "because customers like them and the chains are learning how to use them." Mechanization through palletizing is being increasingly emphasized in the effort to cut costs. Another trend is the decentralization of management, and store operations with much higher pay than ever before for store managers of these larger units.

The continued movement to suburbia, a characteristic of the past decade, has operated to concentrate food chain stores into big units which offer larger profit margins.

There is a limit to diversification into non-foods because chains prefer fast turnover business, and many non-food items require a completely new organization—i.e., to handle credit, etc. Certain fast moving non-food "convenience" items are suitable for food chain self-service supermarkets, where traffic is very heavy. In addition to the trend of population figures that suggest further food chain growth in coming years, there always looms the possibility of more mergers to effect geographical expansion.

DEPT. STORE CHAINS (*Mr. Puckett*)

This nation's increase in population, for several years ahead, will be among "dependents" of school age and below, and people in retirement. Dependents may *share* living standards but *do not create* them, representing a subsidized segment of the total economy. Our real strength lies in our technological achievements in products, methods of production and distribution. Historically, it takes up to 15 years for a newly established product to pass from the laboratory stage to mass consumer markets.

Essentially, retailing is a simple personalized business. Department store groups generally have been able to retain the advantages of the independent department store while attaining many of the advantages of the chain store. While department stores were being viewed with alarm because of their expensive services, the chains were fast adopting almost every "expensive" service of the department store, such as credit, delivery, advertising, creating attractive shopping environments, broadening lines, carrying higher quality (and fashion) merchandise.

History will record the discount appliance specialty stores "as having been an industry that was conceived, born, lived, died and was buried—all in one decade." The so-called discount stores operating today bear more resemblance to department stores than to the original discount store; and the more able ones will *become* department stores.

Department store chains should grow by reason of four distinct factors: (1) Growth and development of units owned; (2) added established units by purchase or merger; (3) establishment of new units in growing markets; and (4) establishment of branches of existing units.

Branch store operations, in addition to spreading the overhead, offer the following attractions: (1) Much of the volume is obtained on basis of customer convenience, *not* through promotion; (2) parent store advertising budget does double duty; (3) with convenient parking, the customer takes away a far greater percentage of her purchases, thus reducing packing and delivery costs, adjustments, return pickups, etc.; and (4) a better quality of help is more readily available to the branch, especially for short work day periods that fit the needs and desires of many suburban housewives.

Individual customers buy individual items of merchandise which they need, or desire, and the retailer either fills the demand or fails. No copyrights or patents protect him. The needs and desires of the consumer are changing rapidly. Just a few of the causes are:

Increased discretionary income, increased discretionary time, increased use of consumer credit, migrations to the suburbs, migrations between sections of the country, migrations from the farms, larger family units, larger number of non-working children, and larger number of non-working grandparents.

Also: much more travel, much more reading, much more television, less awareness of the deep, dark depression of the 1930's, less fear of poverty in old age, less concern about hospitalization and doctors' bills, more desire and determination to live for today, more varied interests in living, and more actual knowledge of how to live.

The Research Division of a department store organization can, and in the future must, know its products before they are available. It must know *when* such products will be available and *to whom they will appeal*.

The department store chains will not win by default in the years ahead. Competition will be tough. However, the competitive battle will be fought on traditional department store grounds and with traditional department store principles of operation. The real challenge will not necessarily be between *types* of retailing because differences are being minimized daily. The real challenge for the merchant is one of trying to keep ahead of the customer in this fast moving, well informed world.

MAIL ORDER (*Mr. Kellstadt*)

The first 39 years in the mail order business was strictly mail order, preceding the establishment of retail store operations that were induced by the exodus of population from rural to urban areas.

The 4 M's in this business are: Men, Merchandise, Money and Methods.

With respect to *men,* Sears accepts several hundred college graduates to learn the business from the ground up. All key men have a stock ownership stake in the enterprise.

With respect to *merchandise,* the philosophy is to have many small supply sources and to see that such suppliers make a profit. "Basic items" *must* be carried in every Sears store, which means that the company has the ability to sign a factory for steady, full production through every week in the year.

On *money,* Sears had no debt until 1958, achieving growth through ploughback of profits, avoiding sales of more capital stock.

With respect to *methods,* the operation is kept simple through a committee system.

Business on credit is being increasingly emphasized in both the mail order and retail store end. Consumer credit is considered very sound in the U. S. and basically responsible for mass consumption. Two-thirds of all people buying on credit today are said to have net assets many times the amount of credit extended.

The Food Forum

Chairman: Frederick R. Darrow
The First Boston Corporation

Speakers at the Food Forum were: W. B. Murphy, president, Campbell Soup Co., who spoke on "Changing Living Habits and the Food Industry"; and William T. Brady, president, Corn Products Co., who spoke about "Foreign Markets and Foreign Operations in the Food Industry."

Key points of Mr. Murphy's address were:

. . . much of the food industry's progress from now on will depend on basic research developments in the life sciences . . . they are just beginning to yield up some of their secrets.

. . . by 1963, it's estimated that the food and kindred products industry will be spending about 40% more on research than last year.

. . . we find convenience foods—originally conceived as an end product—being purchased more and more for ingredient usage.

. . . the growth rate for convenience foods between now and 1970 will be more than double the growth rate for food in general.

Elaborating upon these points, Mr. Murphy said: "Despite what I have said about the industry's quickness in meeting the many changes in living habits, it must be admitted that we have not come close to reaching all the potentials afforded us by these changes. For example, 40% of the homes rarely use any frozen foods at all, and only a small proportion use them on a daily basis. This explains why frozen foods, thus far, have reached only about 5% of food store sales, although this percentage is increasing steadily. In canned items, a government survey shows that 60% of the people in one large city use canned *vegetables* less than twice a week. In another city, the less-than-twice-a-week users of canned *fruits* was 66%.

"Canned soup—one of the earliest and largest items in the convenience foods field—is served by only one-fourth of all families in a single day. But this is a really substantial increase over 10 years ago.

"The growth potential for convenience foods also can be seen in a USDA survey which shows that usage is highest among young homemakers. This is understandable since the older homemakers acquired their living habits when convenience foods were somewhat of a rarity and not of today's quality."

And speaking of research in the food industry, Mr. Murphy observed that "by 1963, it's estimated that the food and kindred products industry will be spending about 40% more for research than last year," and "this is a far greater increase than the average for all manufacturing industries."

Mr. Murphy estimated that "the growth rate for convenience foods between now and 1970 will be more than double the growth rate for food in general."

Mr. Brady opened his remarks by stating that it's now fashionable to tell young men (in contrast merely to going West) to go East, West, North and South—all over the globe in search of business. Then, getting right into his topic, the speaker stated:

"We Americans are rightfully proud of our advanced production and promotion techniques. Sometimes we tend to assume that any other industrial society should welcome our technical 'know how' as a gift. We also assume that the transfer of American salesmanship to overseas markets will produce magical results.

"But, certainly it's a foolhardy and entirely mistaken notion that America has a monopoly on all the advanced ideas in engineering and marketing. In some respects, others are ahead of us and usually their methods are better suited to their own industries and markets. I can say this to you: many of the most important processing innovations in our business were originated in our plants overseas. And, you can't help but be impressed with the sophistication of advertising and promotion in many countries of Western Europe.

"Another example. The company with limited international experience may look at wage rates overseas and assume that profit margins will be magnificent.

"Certainly, there's a significant spread between labor costs in this country and overseas. That's the very reason why so many imported goods are now invading our domestic markets. But if your business is within the borders of a country, you must remember that costs, prices, and profits are all related to one another. Lower wage scales mean lower purchasing power, and that will affect the kind of products you manufacture and the prices you charge for them. What's more, it doesn't follow that packaging and distribution costs—very important factors in a food operation—will be low because labor costs are.

"I think, too, that some newcomers, because of all the advance publicity on the European Common Market, may be unduly optimistic about its early realization. When I addressed the Lausanne Food Congress, last summer, I heard that the goal for 1970 is a Common Market serving a population of 255 million which will spend 45% more per capita than it does today. Maybe so.

"But, there are large problems still to be solved in the Common Market. There is no system of freight rates permitting the economical shipment of farm products to processing plants and then to market. There is no agricultural formula to assume protection for the commodities of six separate economies. There is, understandably, no burning consumer desire to relinquish local food brand loyalties. Remember, too, that no member of the Common Market has been hurt yet. It remains to be seen what will happen in the event of a real conflict of natural interests. This all adds up to the fact that it might be a long time before a newcomer can count on reaching all the countries in Western Europe by being established in one or two.

"The uninitiated may also have the mistaken impression that it is relatively easy to launch operations in an overseas market by simply hitching an established local company to the corporate wagon. It is sometimes believed there are plenty of companies available and that there are no great problems of integration.

"As to outright acquisitions, competitive bidding overseas has already driven the asking prices of most industrial properties sky-high. If the American company acquires a part interest in an overseas outfit, it must at the same time acquire an understanding of the viewpoint of its partners—often controlling partners.

"Finally, there are completely uncontrollable shocks of sudden fluctuations in national economies. When inflation runs rampant, causing currency devaluations, as it has in some countries, the American parent may, in some cases, find earnings remittances from abroad substantially reduced.

"For those who are experienced enough to cope with all this—and throughout U. S. industry many are—the international outlook is bullish. While export sales of U. S. companies dipped to 16 billion dollars last year, from the 1957 high of 19½ billion, sales of the overseas subsidiaries of these companies climbed to 30 billion dollars, more than double in the last decade. Thus, America's true overseas sales figure is close to 50 billion dollars, and some economists predict a 100 billion dollar volume by 1970 with possible 60 to 70% accounted for by overseas plant.

"U. S. business must have confidence in these prospects because its overseas investment now represents 29 billion dollars against less than 12 billion just 10 years ago.

"Certainly we are confident. Not only is our business excellent overseas, but it is growing—and growing at such a rate that it is getting our strongest team efforts. Anything I have said that may seem of a cautious nature is intended only to advise careful study of each opportunity in realistic perspective."

In conclusion, Mr. Brady stated: "If the company's purpose is only to make money—or worse, to exploit local labor and raw materials—it is dead before it starts. Unless it can contribute in a substantial way to the industrial growth of the country, and the welfare of its people, it had better stay away. If these things are done wisely and conscientiously, the welcome is earned—and fair returns may possible follow.

* * * * *

Public Utilities

Chairman: Paul Hallingby, Jr.
White, Weld & Co.

The theme of the Public Utilities Forum was growth —growth not only in terms of revenues, energy sales, and plant account, but also, and more important, growth as measured in earnings per share.

The first speaker, Charles F. Hochgesang, editor of Electrical World, talked on "Electric Utility Growth—How Long Can It Continue?" He answered the question raised by this title briefly as follows: "At the current 8% rate, 20 years for sure—then it could really pick up speed!" He pointed out that for the decade of the '60's he foresaw a rise of 2.2 times in the amount of electric energy consumed in the United States, which works out to a growth rate of 8.2% compounded annually. That compares with an average annual rate of growth during the decade of the '50's of 9.4%, which is adjusted to 8.7%, annually when the large increase in Atomic Energy Commission loads is eliminated.

A principal source of expected increase in electric energy consumption is in the residential field, where a 26% gain in customers served is predicted over the next ten years. Moreover, it appears probable that some 4,000,000 homes will be electrically heated 10 years hence as against 600,000 now. It was pointed out that the average home with electric heating uses roughly 20,000 kilowatt-hours per year, or over five times as much as a home heated with other fuels.

In the industrial field a gain in kilowatt-hour sales of 104% is expected in the next 10 years, which compares with an increase of 112% during the 1950's, after eliminating the AEC load increase. Substantial growth in the commercial market also is anticipated, stimulated by installation of modern lighting that provides from two to five times more light than is found in systems serving older buildings.

Elmer L. Lindseth, chairman of the board of The Cleveland Electric Illuminating Company, spoke on the subject of "Development of Per Share Earning Power in the Electric Utility Business." He discussed seven major areas to which management's attention should be directed in the interest of translating as much as possible of a utility's overall growth into gains in earnings per share. Among these were expense control, with particular emphasis on the trend of operation and maintenance expenses on a unitized basis, and capital investment, measured in dollars of electric plant related to operating revenues. Another area high-lighted was pricing and rate structuring, with emphasis on designing a rate structure that will produce an improving rate of return with growth.

In the area of regulatory climate, Mr. Lindseth stressed the need for off-setting regulatory lag time by making fullest use of modern techniques of forecasting to foresee in advance a decline in rate of return. With respect to marketing policies, emphasis was placed on stimulating sales growth in the more profitable revenue sectors in so far as possible. The broad subject of financial policies was discussed, with emphasis on the long-term approach rather than temporizing for the purpose of making near-term earnings appear satisfactory. The final point discussed by Mr. Lindseth was development and motivation of the management team, and the need for appropriate incentives for good management, such as stock options or profit-sharing plans.

The subject of "Development of Per Share Earning Power by a Growing Natural Gas System" was presented by Harold Burrow, executive vice president of Tennessee Gas Transmission Company. Two principal ingredients to per share earnings growth were stressed, viz., a growing rate base and reinvestment of retained earnings. Mr. Burrow also mentioned that leverage can be used, within certain limits, to offset rising costs of senior capital. Another area mentioned by the speaker was non-regulated activities, in which earning power is not necessarily related to rate base. Emphasis also was placed on the need for prudent control over expenses, a research program aimed at greater efficiency and economy, and maintenance of a high system load factor.

The final area discussed by Mr. Burrow was rates and rate of return. "Consistent treatment by the Federal Power Commission of rate of return is an absolute requirement if per share earnings are to continue to merit investor confidence," said Mr. Burrow; "It will not in itself improve the earnings, but it will keep the stockholder whole."

★ ★ ★ ★ ★

Construction Forum

Chairman: Jane L. Brett
A. G. Becker & Co., Inc.

Walter E. Hoadley, Jr., the prominent economist and treasurer of Armstrong Cork Company, opened the panel with a discussion of "The Next Five Years in Housing." Noting that the new housing market continues to reflect some weakness at this time, Mr. Hoadley nonetheless felt that prospects are brightening for a bottoming out in the near future, and a moderate upturn by summer or fall. A slightly greater availability and fractionally lower cost of mortgage money, aided by the powerful financial force of amortization repayments; more optimism among builders, increased activity among mortgage lenders; and some limited pent-up demand caused by tight money conditions during the past year are the sources for the strength expected in this upward move. On the current official statistical basis, this might mean that the level of housing starts for the year 1960 should approach 1.2 million units, with a continued advance anticipated in 1961. Repair and modernization should edge up over the balance of this year, despite scattered signs that the growth rate in the home fixup field is now slackening.

Taking a longer look forward, Mr. Hoadley then suggested that the sheer numbers of people requiring housing, the expected rise in family formations, the pressures for more space, the total national housing supply, with allowance for losses from demolitions and other causes, and other relevant factors make it seem likely that the level of new home building, including multi-family structures, will edge upward at an average annual rate of roughly 5% over the next five years. With housing requirements accelerating in the second half of this decade, and in the early 1970's, he believed housing prospects for these periods look progressively still brighter.

In taking this look forward, Mr. Hoadley was particularly stimulating as he noted the increasingly contra-cyclical pattern of activity in new home construction (contra to the rate of activity in general business, due to

GARDNER DENVER

GARDNER-DENVER Since 1859

105th CONSECUTIVE DIVIDEND

ON COMMON STOCK

A quarterly dividend of $.50 per share on the common stock of Gardner-Denver Company has been declared by the Board of Directors of the company, payable Sept. 1, 1960, to stockholders of record at the close of business on Aug. 10, 1960.

Quincy, Illinois
June 23, 1960

O. C. Knapheide, Jr.
Secretary

Southern California Edison Company

DIVIDENDS

The Board of Directors has authorized the payment of the following quarterly dividends:

COMMON STOCK
Dividend No. 202
65 cents per share;

PREFERENCE STOCK,
4.48% CONVERTIBLE SERIES
Dividend No. 53
28 cents per share;

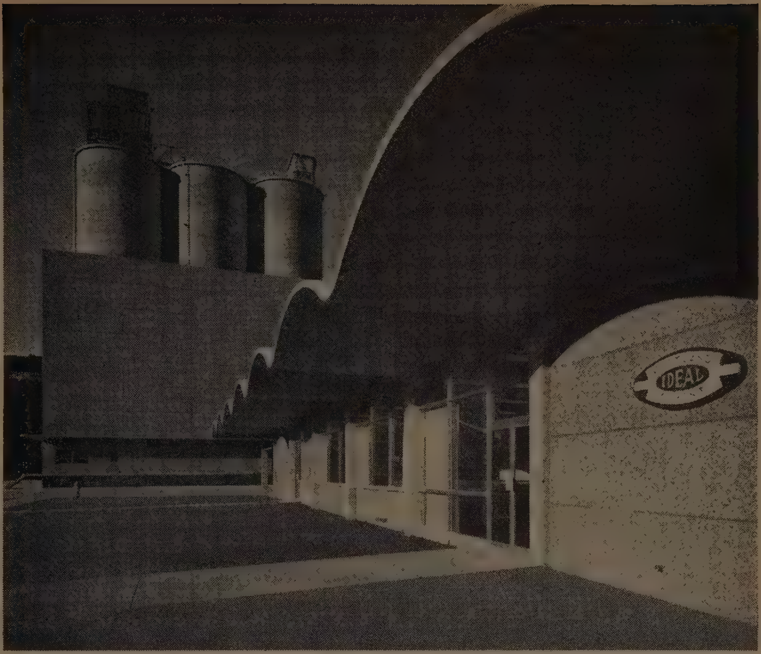
PREFERENCE STOCK,
4.56% CONVERTIBLE SERIES
Dividend No. 49
28½ cents per share.

The above dividends are payable July 31, 1960 to stockholders of record July 5. *Checks will be mailed from the Company's office in Los Angeles, July 30.*

P. C. HALE, *Treasurer*

June 16, 1960

Edison



AT IDEAL CEMENT COMPANY

"Beauty Is As Beauty Does"

IDEAL'S TIJERAS, NEW MEXICO PLANT
Selected for
"TOP TEN" AWARD BY FACTORY MAGAZINE

The selection by FACTORY magazine of Ideal's Tijeras plant (near Albuquerque) as one of the ten outstanding plants built in 1959 from more than 500 entries is a tribute to the combination of beauty and function which has made this plant one of the finest and most efficient cement producers in the world today.

As the old saying goes, in Ideal's Tijeras plant, beauty is indeed as beauty does, with the beauty and architectural styling of the plant's exterior matched all the way down the line with equivalent beauty in engineering, production efficiency, and maintenance.

The FACTORY magazine citation reads in part:
"A concrete example of graceful forms carefully composed for efficient production, Ideal Cement's new plant argues well for broader use of its product in industrial construction. The plant's advanced instrumentation and startling cleanliness make it an industry and community leader."

IDEAL CEMENT COMPANY
DENVER, COLORADO
LISTED ON THE NEW YORK AND PACIFIC COAST STOCK EXCHANGES

PORTLAND IDEAL CEMENT

SERVING SOME OF THE MOST RAPIDLY GROWING MARKETS IN THE UNITED STATES

the relative tightness or ease of money); the possibility of changes in materials; erection methods and types of homes; the feasibility of more extensive trade-in plans for "used" homes; and the cyclical fluctuations in new residential building between a "tight money" maximum and a politically acceptable minimum.

Cris Dobbins, president of Ideal Cement and chairman of the Board of the Portland Cement Association, then took the chair from Mr. Hoadley to discuss "The Outlook for the Cement Industry." Commenting on shorter term prospects, Mr. Dobbins noted that shipments this year should approximate 330 million barrels versus 329.6 million in 1959. Capacity, however, is well above this: 1959 industry potential was close to 410 million barrels, with another 20 million barrels to be added by the 1960 year end. The rapid increase in productive capacity, along with the unresolved problem of percentage depletion, and the new tendency to vertical integration of ready-mixed concrete producers and concrete products manufacturers with portland cement manufacturers were cited as reasons for the poor performance of cement stocks generally in the past 15 months.

'Excess Capacity' to Be Needed

Looking forward a few years, Mr. Dobbins noted that present "excess" capacity is almost certain to be needed because of increases in construction volume, and research and technological improvements which are resulting in increased use of cement per unit of construction. Comments made on the latter topic, which included a detailed appraisal of concrete shell roof construction, pre-stressed concrete, ultimate strength design, precast and lightweight concrete, and slip form paving, were particularly helpful in putting perspective on the longer term potential for this product.

Le Roy A. Petersen, president of Otis Elevator Co., completed the panel with a discussion of "The Prospect for Multistory Buildings in the U. S. and Abroad." Commenting on the recent rate of activity in office building and (a necessary corrolary in the absence of off-setting vacancies in older buildings) in "multistory" apartments, he noted that this activity is apt to go on more or less indefinitely, there being nothing either in the short or long term view which, given an extended period of peace, would interrupt for more than short periods of time the steady growth of the volume of "multistory" buildings in the U. S. Mr. Petersen also pointed out that this greatly increased activity has meant that the annual dollar sales of new elevators for "multistory" buildings, during the past ten years, has increased 60%, and during the last five years, 30%, or an average 6% per year. (Forecasts for 1960 indicate an increase of more than 10% over 1959.)

Multistory building abroad was said to appear to offer almost unlimited possibilities, with a "deluge" of new multistory office buildings perhaps in prospect for the principal cities of England, and a vast building program seemingly in evidence for other countries in Europe.

Chemicals

Chairman: Francis S. Williams
F. Eberstadt & Co.

Speakers at the Chemical Forum were: Dr. Charles Allen Thomas, board chairman of Monsanto Chemical Co.; Hans Stauffer, president of Stauffer Chemical Co.; and Dr. Augustus Kinzel, vice president of Union Carbide Corporation. Francis S. Williams, president of Chemical Fund, Inc., was chairman of the forum, and Robert Perry, president of the Security Analysts of San Francisco, was moderator.

Dr. Thomas, in his discussion of opportunities for the American Chemical industry abroad, noted that the major impetus behind the pursuit of foreign opportunities by U. S. companies stems from the belief that industrial expansion abroad is faster than in this country, and from the fact that labor and research costs are lower overseas. He mentioned the following principles as important in setting up a successful foreign operation: First, export as long as possible and shift to foreign manufacture only when there is a strong, immediate sales advantage accompanied by a long term growth potential. Second, be sure opportunities abroad meet the domestic standards for allocation of capital, including an adequate rate of return on investment. Third, the proposed venture should fit the basic economic, social, political and industrial climate of the country under consideration. Fourth, there should be a basic need for the product. Fifth, there should be a record of political stability in the country under consideration.

Specific opportunities helping to justify an overseas venture include participating in markets which import quotas, tariff barriers and foreign currency shortages would otherwise make inaccessible; tapping additional foreign markets by exporting to other countries within an established trade area; exchanging know-how for equity or licensing it for royalties; providing an outlet for the sale of intermediate chemicals of the parent company or securing raw materials needed by the parent company; broadening the company's overall knowledge of foreign commerce; and increasing the breadth of the company's technical knowledge by means of overseas research. There are a number of ways to set up a foreign operation, but there are many pitfalls, and to be successful a company should understand the various ramifications of each type of operation (100% ownership, joint ventures, arrangements as to supply of capital, etc.).

As to the future of U. S. export sales, Dr. Thomas feels that shipments of bulk chemicals may decrease, and export sales may shrink as a percentage of total sales. However, exports of sophisticated specialty chemicals, with high profit margins, are increasing, and dollar volume of exports will not necessarily decline.

Areas of Chemical Growth

Mr. Stauffer discussed growth areas of the chemical industry, and stated that the industry's real growth opportunities will stem from the continued replacement of natural materials in areas of fundamental, continuing human needs — food, shelter, clothing, health, and defense.

Per capita consumption of food in the world has actually declined in the past decade, and there are powerful pressures, resulting from the competition between the U. S. and Russia, to provide more and better food for underdeveloped and underfed areas of the world. As demand for food increases, the chemical industry will be called upon to provide more and better fertilizers, pesticides, and protective food additives.

Regarding clothing, Mr. Stauffer pointed out that there is not now enough land on which to produce enough natural fibre to properly clothe the world's population, and that a large part of the future demand for clothing will be satisfied by synthetic fibres, including nylon, dacron, orlon, rayon, acrilon, dynel and others. While only 1,000 pounds of cotton can be raised on two acres in one year, a synthetic fibre plant covering two acres can turn out 1,000,000 pounds of product per year.

In the field of shelter, new approaches to construction are required, and these new approaches should lead to widespread utilization of synthetic materials as basic materials of construction. This is a practically untouched field of future growth for plastics. Recent developments in the field of health range from oral diabetic drugs to internal casts of polyurethane foam, and other new developments are certain to come.

The needs of defense have resulted in a variety of new products including high performance alloys, refractories, high temperature plastics, structural adhesives, missile fuels, and other products. Many of the technical discoveries made for military uses should find important civilian applications.

Costs of Research

Dr. Kinzel spoke on basic research in the chemical industry. He pointed out that published research and development figures range from the very conservative—which include only expenditures leading to product improvement or development — to the very non-conservative, which may include a variety of other expenses. Discussing the problems involved in choosing R. & D. projects, he noted that the choice of development projects is relatively easy since many facts are available by the time a company is ready for this step.

The choice of applied research projects is more difficult. The wide variety of possible basic research projects makes this selection extremely difficult. In general, however, $1 spent on basic research will lead to expenditures of $10 on applied research; $100 on development; and $1,000 on plant—so a company can afford a relatively high percentage of unsuccessful basic research projects. Most large aggressive companies spend roughly 30% of total research expenditures on basic research. He indicated that basic research costs are roughly 20% to 30% higher in the U. S. than in Europe.

Dr. Kinzel feels the increasing merging of the sciences of chemistry and physics, in the study of materials, will be a great boon to industry in the future, and he looks for a big backlog of basic research to be forthcoming in the public domain. The chemical industry, he feels, will be the one to commercialize this research. He spoke optimistically of the long-term possibilities for silicon, once a technical breakthrough leads to a ductile form of the material.

Summarized by Edward M. Giles, Chemical Fund.

* * * * *

The Drug Industry

Chairman: Ralph W. H. Geer
Laird & Company, Corp.

"The medical standard of living in the United States is rising and so is the per capita consumption of pharmaceutical products," according to Eugene N. Beesley, president of Eli Lilly and Company, and first speaker at this forum. Consequently, "prospects for the ethical drug industry continue to be remarkably good."

"Because of the projected increase in population and the research which is going on in the field of medicine by our industry and others, the pharmaceutical market in the United States in 1970 may be double that of 1960." The trend of expansion in foreign markets may also be expected to continue—for some time to come. As in the United States, the population is growing and the standard of living is improving.

Mr. Beesley also said that many diseases which are rare in the United States, but which afflict many people in other parts of the world, have yet to be effectively treated. "For instance, 800 million people—close to one-third of mankind—are suffering from worm parasites. Malaria, leprosy, and a number of tropical diseases are still uncontrolled in some countries." A number of "complexities" however, will face the pharmaceutical industry in the coming decade. Some unconquered diseases are "discouragingly complicated and inherently more difficult to prevent or cure than diseases which have already been controlled. . . . Taking cancer as an example, it appears that there will have to be multiple products to treat effectively the many different forms of cancer. No one product, therefore, will have a tremendously large market."

W. Furness Thompson, vice president, Research and Development Division of Smith, Kline & French, the second speaker, said "the public acceptance of the mentally ill as sick human beings in need of treatment, rather than as creatures to be avoided and feared, results, to a great extent, from the development of drugs that provide effective medical treatment for some of the more distressing types of mental illness. The new antipsychotic drugs clearly represent a major contribution of pharmaceutical research to the nation's health; their impact has been enormous, and it has been said that they constitute a breakthrough in the field of mental disease and hopefully open the way to further advances." The speaker further explained:

"In 1954 we had twice as many people living in the United States as we had in 1900. We had *four times* as many people in mental institutions. Mind you this was only six years ago.

"Then a dramatic change occurred. In 1955 reserpine and 'Thorazine' became available for widespread use. The very next year, 1956, for the first time in the history of mental health, the number of patients discharged from mental hospitals exceeded the number of patients admitted to these hospitals. Nor was this a statistical fluke. It was the beginning of a trend that still continues, despite the fact that because of our rapidly expanding population the actual number of patients admitted to mental hospitals has been steadily increasing.

"What of the future? Obviously I can't see the road ahead much, if any, better than you can. . . . So far, the anti-psychotic drugs that have been developed, since reserpine and chlorpromazine, probably do not represent major breakthroughs in therapy; they are, rather, sharper tools to do the same job. But developing these tools is not an unimportant achievement. Just as a carpenter can do a lot better work if he has several different sized bits to use with his brace, so too can the psychiatrist do better work if he has — as it were — several 'different sizes' anti-psychotic tools available to him.

"In addition to providing different benefits," Mr. Thompson stated, "compounds which may be chemical cousins may also cause side effects that are quite different both in kind and degree. For example, effective doses of our newest phenothiazine drug, 'Stelazine,' occasionally cause very annoying side effects that are rarely caused by 'Thorazine.'

"After the advent of the tranquilizers, including the reserpine, the phenothiazines and meprobamate, it was obvious that the crying need was for some drug to combat depression. This need has been met at least in part by Morsalid and the other MAO inhibitors to which the name 'psychic energizer' (whatever *that* means) has been applied. . . .

"I have little more to say except to sum up this talk on mental health by pointing out that we have come quite a long distance in these last 6 years. In spite of this, the problem of mental illness seems to be expanding rather than contracting as we get into it. I feel that a highly intelligent research and development job is being performed by the pharmaceutical industry which be greatly strengthened by an increase in trained personnel and facilities at the clinical level. Although the future is impossible to predict, I think we are justified in looking forward to it optimistically."

Dr. Henderson Explains Steroids

The third and last speaker, Dr. Edward Henderson, vice president of Schering Corp., outlined some of the background and characteristics of steroids. He said that "all of the steroids related to hormones are derived from the same nucleus. This nucleus is a four-membered ring structure from which a prolific number of variations can be derived. Estrogens are 18-carbon compounds; androgens are 19 carbon; progesterone and corticosteroids are 21-carbon. Hormones may be divided into two general classifications: extracts of glands, such as ACTH or insulin; and steroids, crystalline counterparts of the natural secretions." He also mentioned that Dr. Edward A. Doisy, of St. Louis University, discovered in the 1920's the first steroid hormone, estrone. For this discovery Dr. Doisy was awarded the Nobel Prize. Today estrone is not derived from animal sources, but is made by total synthesis.

In 1954 prednisone and prednisolone were developed in the laboratories of Schering Corporation. These compounds caused little or no retention of sodium. More recently several other corticosteroids have reached the market; triamcinolone (Lederle); 6-methylprednisolone (Upjohn); and dexamethasone (Merck). While the characteristics of these are not greatly different from prednisone, they have taken a share of the market for anti-arthritic agents.

In view of the impressive record of steroids in the relatively short time they have been available to the medical profession, and in view of the active continuing scientific investigations of them in many laboratories, it is reasonable to believe that their future possibilities are likewise impressive.

* * * * *

Surface Transportation

Chairman: Herbert F. Wyeth
Shearson, Hammill & Co.

The three speakers at this forum were: Dr. Ernest Williams, professor of transportation, Columbia University's Graduate School; James F. Pinkney, vice president, Ryder System, Inc.; and Downing B. Jenks, president, Chicago Rock Island & Pacific Railway Company.

A summarized version of Dr. Williams' remarks follows:

The need for the cooperative development of a transportation system through some means of coordinating the several forms of transportation seems to be universally recognized. It stems from the wide differences of capability and of cost structure of the several forms of transport—the flexibility and relatively low terminal cost of the truck, the line-haul economy of the railroad, the even lower port-to-port costs of modern barge and ship operations, the speed capability of the aircraft, etc.

Time was when a complete transport system was provided by the railroad—but the economy was railbound. The truck in particular has relieved us from this restraint, but by our method of developing the newer forms of transport we have shied away from a comprehensive transportation system; maintained a set of competing systems, none thoroughly comprehensive;

and failed to mesh the particular characteristics of each in the search for maximum efficiency.

My function here, I suppose, stems from the fact that I directed the studies which underlie the recent report of the Secretary of Commerce on transportation policy. That study like many predecessor efforts in government, both in the Executive and Legislative branches, is concerned with the adjustment of Federal policy in transportation in order to promote the national interest.

It is important to notice, in considering it, that the objective of national transportation policy is to secure the provision *at least cost* of that amount of transport service that is worth its cost. Either over or under provision of facilities and service will produce a drain upon the economy rather than a stimulant. There is no national interest in any particular type of transportation, but only in the efficient discharge of the *transportation function* at the level required by the economy. In recognition of this fact, the President's directive charged the Secretary with exploring what changes in government policy might be necessary in order to insure the development of a balanced transportation system.

Hence, the report sees, in a situation where a large part of the investment is made in basic facilities by government, and must continue to be made by government, a necessity for the application of economic principles to government investment and a need for a neutrality of government promotional and regulatory policies in order to afford each mode an opportunity to develop which is consistent with its economic characteristics. Thus, it seeks to encourage more unified consideration of government programs in all forms of transportation, the introduction of more economic content in the evaluation of programs and projects and the assessment of user charges upon all transportation facilities provided by government. Because of shortness of time and of resources it calls attention, merely, to certain areas of probable tax inequality which also calls for correction if a neutrality of government policy is to be achieved.

On the regulatory front it proposes somewhat less restraint upon competitive forces, taking the form of a gradual approach to relaxation of restraints upon entry into the transportation industry and a definition of destructive competition in economic terms. Specifically upon the subject of improving the organization of the transportation system and facilitating coordination of modes, the report takes the position that the initiative should come from the transportation industries and that the attitude of government should become more flexible than in the past.

Thus the report calls for a receptive attitude toward consolidation of railroads while rejecting any forced or mandatory consolidation upon the basis of a government plan. It accepts the proposition that coordination can be achieved by common ownership, by the development of through routes and joint rates among modes, or by various combinations of these methods. It sees no reason why one approach should be adopted to the exclusion of the other. Hence, it looks forward to the possibility of a significant increase in the scope of joint arrangements, but at the same time urges that common ownership be judged appropriate in cases where clear public advantage can be shown in respect of improved quality and efficiency of service and where the effectiveness of competition will not thereby be endangered.

Sees New Area in Transportation

Excerpts from Mr. Pinkney's speech follow:

"It is easy to talk about cooperation but sometimes hard to bring it about in the absence of a firm convic-

Tri-Continental Corporation

A Diversified Closed-End Investment Company

Second Quarter Dividends

Record Date June 21, 1960

30 cents a share

on the COMMON STOCK

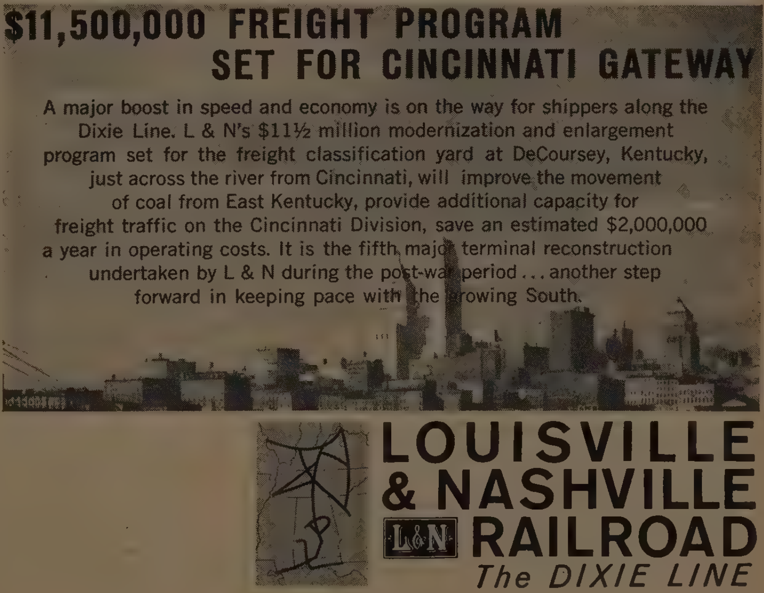
Payable July 1, 1960

67½ cents a share on the

$2.70 PREFERRED STOCK

Payable July 1, 1960

65 Broadway, New York 6, N. Y.



$11,500,000 FREIGHT PROGRAM SET FOR CINCINNATI GATEWAY

A major boost in speed and economy is on the way for shippers along the Dixie Line. L & N's $11½ million modernization and enlargement program set for the freight classification yard at DeCoursey, Kentucky, just across the river from Cincinnati, will improve the movement of coal from East Kentucky, provide additional capacity for freight traffic on the Cincinnati Division, save an estimated $2,000,000 a year in operating costs. It is the fifth major terminal reconstruction undertaken by L & N during the post-war period . . . another step forward in keeping pace with the growing South.

LOUISVILLE & NASHVILLE RAILROAD

L&N

The DIXIE LINE

tion that it is in the cooperator's self interest to cooperate. During the past 10 years the general feeling seems to have been that it has not been competitively advantageous for one mode of transportation to cooperate with another. This feeling seems at times to have been carried to the point where transportation interests are working against their own self interests. While I personally feel that we are entering a new era of cooperation in transportation, there are many people in the industry who do not see it that way.

"Many have depicted the transportation industry as a sick industry with great and almost insurmountable problems; we have stubbornly insisted on compartmentalization of our services by mode of transportation; we have involved ourselves in a pricing war at a time when our costs are increasing with the result that we are hurting our service and service is the only thing transportation has to sell. It is high time that we stopped rendering lip service to cooperation and to coordination and sat down together. . . .

"It would certainly seem that for the exploitation of the present optimum conditions bearing upon transportation, and to take care of our own self interests, so that we may continue to provide the service which the shipping public is demanding, we must sit down and cooperate with each other.

"I have been much impressed with the efforts and activities of my fellow panelist, Downing Jenks, along these lines and I only wish there were more men like him in transportation. We may not entirely agree on all matters, but I sense that we agree with each other that the constant feuding between the two great modes of transportation that we represent is wasteful. . . .

"In addition to the major area of coordinated transportation, there are many other areas that lend themselves to cooperative activity. We should all jointly be attacking the problem of delay in administrative proceedings; likewise, illegal motor carrier operations. There should be a community of interest in dealing with tax problems instead of the present disposition to use taxes as competitive weapons. . . .

"We in Ryder System are presently contributing to, and conferring with the staff of the transportation department of one of our largest universities about such studies. We have in mind joining with other interested carriers, both rail and motor, in having such a research group take a long look into the future with a view to coming up with facts and ideas that might make cooperative action feasible as well as more attractive.

"I am sure that you Security Analysts can contribute. You sit in a fine vantage point from which to observe the entire operation of America's industry including its transportation activities. You and your companies serve all of us and we know, of course, that you are interested in our welfare and prosperity. I would hope that many of you will join in the furthering of the cause of cooperation among America's great transportation modes."

Excerpts from Mr. Jenks' address follow:

"With all the diversification in business, there is opposition to diversification when a railroad wants to expand operations to engage in transportation by truck, barge or airplane. I do not understand the opposition, except of those engaged in these other methods of transportation for hire who would object so as to retain their own monopoly. For this attitude on the part of common or contract carriers I do not condemn them. But I do say that they have no more right to object to railroads engaging in truck or barge business than does the specialist to object to the family doctor; the small shop owner to the chain store; the manufacturer who produces only one product to the manufacturer who produces many; or than does the same common or contract motor or barge carrier to the operations of business concerns which buy their own fleets of trucks or barges and transport their own traffic.

"We have lots of what I consider useless regulation but I recognize that common carrier railroads and motor carriers will always have it and, indeed, too much of it.

"This regulation would prevent any abuses by the railroads if they were to engage in common trucking, barge operations or in operating airplanes. I have heard it said that with their enormous resources the railroads could drive their motor common carrier competitors out of business. Not that I would use them for this purpose, but I do wish the Rock Island and the other railroads had these enormous resources.

"More important, the very forces of competition would prevent any abuses. Contract carriage, and particularly private carriage, would be a threat which would operate, entirely aside from regulation, to keep things on the right basis. The railroads could not drive other common carrier truck lines out of business and then have their own way. The contract carrier or the private concern would always be ready to step in and threaten to engage in the operations. . . .

"While it is true that piggy-backing has grown enormously in the last few years, the fact remains that in October 1959, 45,000 cars of piggy-back traffic were handled out of a total of 2,000,000 railroad cars of traffic handled—1.5%. On the Rock Island we handled 3,500 trailers and 97,000 conventional carloads. Percentage-wise to all rail traffic the traffic is insignificant, and likewise, to all truck traffic, the relationship is insignificant. The amount of piggy-back traffic moving on joint rail-truck rates is even more insignificant. We have some joint rates. In 1959 we handled 34 truckloads under these rates. In October 1959 another railroad which has had these rates in effect for 20 years handled 20 truckloads under these rates. Other illustrations are unnecessary. . . .

"Now I wish to discuss very briefly the general subject of piggy-backing to show that piggy-backing is not as good as diversification.

"Except in congested portions of the East, or in the case of special movements, piggy-backing would not result in economical operations where the rail piggy-back haul would be less than 250-300 miles in length. For my railroad, a minimum of 400-500 miles would be more realistic. Actually our piggy-back movements average 700-800 miles in length. Thus, in the West the railroads and their subsidiaries would have little opportunity to participate in movements less than 250 miles in length, but would be left to handle the unprofitable, unwanted business within this distance on their own rails, while the trucks, which are selective in soliciting their cargoes, would handle the business they wanted within and beyond this distance. Under the law, most of the rail subsidiaries operating even within these distances are hampered by key point restrictions. . . .

"The railroads are a mass transportation agency. They can economically operate only with large volumes of traffic. For piggy-back operations to be successful, there must be a large volume of business since the piggy-back cars require expedited service on trains stopping, for the most part, only at the ramp points, and these stops in the West must of necessity be several hundred miles apart if speed is to be maintained. To make such trains profitable, they must carry a large volume. . . .

"For the reasons which I have stated, the amount of business which will move piggy-back is quite limited in comparison with other traffic which will move by railroad or truck. Piggy-backing is not an adequate substitute for rail-owned common motor carrier operation.

* * * * *

Oil and Gas

Chairman: Frank K. Woodfin
Standard & Poor's Corp.

Speakers for the oil and gas forum were: A. A. Buzzi, vice president finance, Shell Oil Company, and T. F. Bradshaw, vice president finance, Atlantic Refining Company. H. W. Anderson, president of The Boston Society of Security Analysts served as moderator.

Mr. Buzzi, whose topic was "Financing Oil Industry Growth," spoke of the outlook for liquid hydrocarbon demand in the U. S. during the next decade and suggested that the industry is moving into a period of substantial growth in physical quantity of barrels and dollars. At the same time, the 1960's will be characterized by a slowing-down in the percentage *rate* of growth. The increase in domestic consumption is expected to approximate 3.5 million barrels per day by 1969, a gain of 37% over 1959.

This growth in volume is practically equal to the 3.6 million barrels per day increase achieved over the past 10 years. An increase of this magnitude holds promise of profit opportunities, but the slowing of the rate of expansion justifiably has given rise to examination of the industry's profit prospects. This decelerated rate of growth must be recognized and translated into a reduced rate of expansion of productive capacity if the industry is to maintain current levels of profitability, it was pointed out.

There are increasing indications that the industry is cognizant of the importance of paring down this excess capacity and adapting itself to the decelerated rate of future growth. These signs include economy programs, stress on greater efficiency, increasing diversification into chemicals, and moves into foreign production and markets. Capital expenditures have been curtailed to some extent. Mr. Buzzi estimated that in 1960 the industry will hold its expenditures near the 1959 level, whereas business in general may spend significantly more on plant and equipment.

Mr. Buzzi expressed the opinion that the substantial base of "un-utilized" capacity in the petroleum industry can support growth in demand for several years without spending above the current level. A time will come at which it will be necessary to step up cash outlays on domestic production and refining in order to keep pace with demand. This point, it was stated, will likely be preceded by some improvement in rate of return on invested capital. During the next few years, Mr. Buzzi estimated, there will be an increase in the amount of domestic cash income available for foreign expansion and diversification moves into chemicals.

It was pointed out that a healthy industry requires that natural gas must be permitted to contribute its fair share of the huge expenditures needed in the exploration and production effort. This, it was stated, can be best accomplished by permitting the field price of gas to be regulated on a commodity basis, with the forces of competition supplying the regulation. Only by this means can the high risks of exploration be assumed, to assure long-term supply. Pending some reasonable solution of the existing regulatory problem, which does not appear to be working to the advantage of anyone, it was stated, producers can naturally be expected to dispose of their natural gas wherever available into unregulated markets.

It was pointed out by Mr. Buzzi that the margin by which petroleum's earning power has exceeded the typical rate earned on invested capital by other industries has been decreasing for several years. Higher costs of finding and developing oil were cited as part of the picture, along with intensified competition in the marketplace. A tightening of capital outlays and closer surveillance of inventories were mentioned as tending to mitigate the problems. Based on expectations that the industry will adjust to the decreased rate of percentage growth, and based also on its position in the energy field, and profit opportunities in petrochemicals, the health of the petroleum industry is rated as sound. Mr. Buzzi pointed out that there are few industries that rival petroleum's potential expansion into new areas. Oil equities in the future may be better dividend payers to enhance attractiveness in competition for new capital.

Investors Raise Questions

Mr. Bradshaw, in his discussion "Whither Profits?," pointed out that three things have happened to make serious investors question the basic soundness and future solidity of oil investments: First, the current surplus situation; second, some loss of confidence in ability of oil management; and third, the emergence of newer glamour industries—space, electronics, chemicals.

It was stated by Mr. Bradshaw that the key question

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is "When will the industry learn how to manage this new kind of oil industry?" The question is not "How long will the surplus last?" Basically, the huge reserves of the Middle East assure a fundamental surplus of oil as far ahead as anyone can see.

The only practical solution is, of course, a proper management of the surplus. The immediate past history would indicate that oil managements have not yet learned how to live in this new world of surplus. Some factors making the management of surpluses of oil difficult were pointed out, including the fact that it would be impossible for American companies to participate in any "As-Is" market regulation agreement such as the "Achnacarry Agreement of 1928."

Another problem, of course, is that world oil is no longer exclusively in strong hands. Also, oil has become a "national" resource, providing an excuse for countries such as France, Venezuela and Argentina to set up government owned companies. The latter moves, however, may point the way in time for some kind of international oil proration, as proposed by Sheik Abdullah al-Tariki, Saudi Arabia's director general of Petroleum and Mineral Affairs. Among Mr. Tariki's objectives are: (1) Stabilization of markets by prevention of production in excess of market demand; (2) conservation; and (3) prevention of economic waste by unnatural depression of prices.

It is recognized there are many difficulties in the way of successful international prorationing.

A second possibility mentioned is informal cooperation between the large international companies and the oil producing countries. Mr. Bradshaw in any event is convinced that control of the surplus of some sort or another will become effective, and in the relatively near future. Too much is at stake to allow the international oil markets to deteriorate into chaos.

The illusion of waiting out the surplus is most clear in the foreign picture. The domestic picture more likely will be one of surplus for a relatively short time, followed by a longer period of dependence on foreign oil. In the U. S., we have the tools to manage surplus prorationing and the mandatory import quota system.

Of course states other than Texas must bear their fair share of the burden of proration. Also, more realistic help must be given by managements to the states in using proration as a tool. Better estimates of demand are needed.

It was pointed out that the oil surplus is fundamentally a blessing, not a scourge. Oil men may better hope the surplus never disappears. A return to an adequate level of profits will occur when oil managements and governments learn how to manage the surplus effectively.

Mr. Bradshaw expressed the belief that the current transition phase may last a year or two longer. During this period, oil earnings may be somewhat depressed. On the other hand, earnings during this period will be substantially aided by the long-needed stripping-down operation through which most oil companies are now going.

Aviation Forum

Chairman: Selig Altschul
Aviation Advisory Service

A distinguished panel of three experts addressed The Aviation Forum. They were: Alan S. Boyd, member of the Civil Aeronautics Board; Albert H. Gordon, senior partner, Kidder, Peabody & Co.; and Stuart G. Tipton, president, Air Transport Association of America.

Speaking on "The Regulatory View," Mr. Boyd said:

"Many persons associated with civil aviation think of Civil Aeronautics Board regulation primarily in relation to the trunkline carriers. This view overlooks our responsibilities to local service carriers, supplementals, international carriers, all-cargo carriers and helicopter operators. Dealing with these latter categories adds to the regulatory lag on matters affecting the trunk carriers. . . .

"The Board has consciously and conscientiously refrained from usurping the prerogatives of management. This does not strictly apply in the case of local service carriers, where by virtue of law we are required to consider the honesty, efficiency, and economy of management. We would have the same responsibility in the trunk carrier field were any of them to revert to subsidy. As a general rule, we do stay out of management. . . .

"Much criticism has been directed at the Board for its awards of alleged excessive route authorizations in the past five years. Consistency is certainly not a virtue in these quarters. The same managements who beat the Board over the head for its grant in one place simultaneously spend time and money seeking the same thing in areas where they do not presently operate. In vulgar quarters this is known as the Bull Moose philosophy. . . .

"Now, it seems to me that the airlines have taken all the passengers they will get from railroads and buses. Rail and bus passengers today either want to use those modes of transportation or cannot reach their destinations by commercial air carriers. While it may be possible with new equipment and new services to persuade some present air travelers to use planes more than at present, I can see only one significant area in which additional passenger traffic can be developed. This is among the millions who now travel by private automobile."

'Airlines Epitomize Progress'

"Restoring Investment Confidence to the Airlines" was the subject of Mr. Gordon's address, during which he pointed out that "to the institutional and individual investor, the airlines have appealing qualities for the industry epitomizes technological progress and expansion. Its growth should provide glamour. He continued:

"Growth in traffic and gross revenues has been sparked by the infusion of expanding capital into the industry. Net earnings, however, have not begun to match the rate of growth of traffic or even of the capital enticed into the industry. . . . I wonder if airline managements and the regulatory authorities realize how keen the competition is today for funds and that the

Of what benefit is "free" champagne when the flight is late and the passenger must wait 30 minutes for his baggage? If enough were provided to get soused, one wouldn't care about the baggage; but the stewardesses won't provide a sufficient amount. Speed remains the product to be sold, and its value is accentuated by the jets. Most airline passengers realize that champagne, fresh flowers, and meals catered by restaurants recommended by Duncan Hines are not gifts of the airline. They know who pays.—*Alan S. Boyd, CAB member.*

airlines are laboring under a great handicap in this competition.

"The investing public, both individual and institutional, before investing and before disposing of prior purchases, evaluates corporate securities primarily on the basis of earning power, past, present and potential. Necessarily, in regulated industries prime attention is accordingly focused on the nature of the regulatory climate. To be sure, company asset values are taken into consideration, particularly with respect to debt securities; but in the final analysis, the owner of debt securities recognizes that an adequate flow of cash earnings to pay interest and to meet sinking fund requirements is his best protection.

"For a company to obtain funds from the sale of senior securities, it is vital that a solid equity base be established. For such a base, earnings must be sufficient to pay, at some time, adequate dividends with a margin of safety not only for the sake of the dividend but for the well-being of the company. The equity is the foundation on which the financial pyramid rests. Absence of adequate earnings will tend to destroy investment confidence in a company and will make difficult the acquisition of equity funds. Practically all the regulatory commissions of the electric utility industry have recognized these basic facts of economic life. As a consequence, the electric utilities have raised the huge sums necessary to fulfill the increasing demands of their customers on a relatively attractive basis.

"In contrast, the airlines picture is a drab one. The investor views the air transport industry as one in which, while total operating revenues have grown impressively, there has been no comparable growth in net earnings.

"As we all know, the rate of earnings is far behind the rate of growth in traffic and revenues. Moreover, despite the boom in air travel on many routes sparked by jet equipment, earnings for the industry, as a whole, are likely to be disappointing this year.

"This is so even if attention is not focused too closely on the frightfully poor earnings of the first quarter. From an operating profit of $16 million during the first three months of 1959, the domestic trunks reported an operating loss of $24 million in the first quarter of 1960 or a swing of $40 million."

Air Transportation Climbing

The third speaker, Mr. Tipton, emphasized that "air transportation is no longer an up-and-coming form of travel. It is here today not only as an essential industry but one on which much of the future hopes of the country must rely. Let me illustrate the dynamic growth that has taken place in the relatively short period of this industry's development.

"Twenty years ago, for example, the U. S. airlines served less than 2 million passengers, a number less than 1½% of the nation's population at that time. Last year, the airlines carried 55.9 million passengers, a number equal to about 33% of the population.

"The airlines, which ranked well behind trains and buses just 10 years ago, are now the No. 1 form of public transportation between United States cities as measured in terms of passenger-miles. In fact, it appears that 1960 will be the year that air travel exceeded the combined total of train and bus inter-city passenger-miles. . . .

"In just 10 years, the total annual dollar turnover generated by the U. S. Flag airline system has increased from $1.5 billion to over $5 billion. In addition, the airlines stimulate a wide range of economic activity by purchasing annually some 100,000 different items from an estimated 10,000 different concerns.

In aggressively promoting their services, the airlines account for almost two-thirds of all money spent by transportation companies in newspaper advertising in the United States. Last year, the $31.4 million spent for this purpose by the airlines was almost five times the amount spent by the next biggest transportation advertiser, the railroads. . . .

"As one illustration, consider for a moment how beneficial it has been for the American public that airline management had the foresight to adopt a conservative depreciation policy. There is no telling what condition the U. S. Flag airline system would be in today if such a policy had not been adopted. . . .

"With the tremendous productivity and efficiency of the new jet fleet — with the realistic attitude now in evidence at the CAB—with the remarkable leadership displayed by Congress — with airline managements' proven record—we can look forward to unlimited benefits for the American public from a strong national air transport system. We are dedicated to that end."

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Nonferrous Metals

Chairman: *C. C. Bailey*
Paine, Webber, Jackson & Curtis

The Nonferrous Metals Forum was held on Tuesday afternoon at 15 William Street in the headquarters of the New York Society of Security Analysts. This gave an opportunity for many of our out-of-town guests to visit the new and expanded facilities of the New York Society, which has only been in use since last fall. Despite the distance from the headquarters of the Convention at the Waldorf-Astoria, and the time involved in traveling downtown and back again for the evening banquet, the Forum was very well attended. Those who attended were well rewarded by the interesting and informative presentations of three competent speakers and by the forthrightness of their replies and discussion in the question and answer period.

Lawrence A. Nowell, president of the Denver Society of Security Analysts, was guest moderator and opened the meeting with appropriate introductory remarks. He then introduced Chairman C. C. Bailey, metals analyst, of Paine, Webber, Jackson & Curtis, who in turn introduced the speakers and conducted the question and answer period. The three guest speakers were: Frank L. Magee, president of Aluminum Co. of America, whose subject was "Aluminum in the Sixties"; Jean Vuillequez, vice president of American Metal Climax, Inc., who talked on the "Outlook for Copper, Lead and Zinc"; and Dr. Frank H. Driggs, president of Fansteel Metallurgical Corp., who discussed "The Specialty Metals—Outlook for the Sixties."

Excerpts from Mr. Magee's address follow:

"Whether it proves to be the 'Soaring Sixties', the 'Fabulous Sixties', the 'Golden Sixties', or simply the 'Over-publicized Sixties', it can hardly help becoming one of the most interesting decades since the turn of the Century.

"In the past 10-year period, the size of the industry and intensity of competition have increased sharply as growing markets demanded more metal. First, U. S. primary aluminum smelting capacity has more than tripled during this period. From the level of approximately 743,000 tons in 1950, it has risen to about 2,420,000 tons as of April, 1960. Second, the number of domestic primary producers has increased from three to the present total of six (Alcoa, Reynolds, Kaiser, Anaconda, Ormet and Harvey). In Canada, Aluminum Company of Canada was the sole producer in 1950, with an installed capacity of approximately 500,000 tons. Today, there are two Canadian primary producers —Alcan and Canadian British Aluminum Company Limited — with a total capacity of approximately 878,000 tons. The total North American capacity for producing primary aluminum is now about 3,300,000 short tons.

"The third point also involves competition. The number of non-integrated fabricators of aluminum mill products in the United States has increased 34% in the past five years, from 201 in 1955, to 270 in 1959. Included in the total for 1959 are 29 sheet fabricators and 127 extruders. This growth in non-integrated fabricators has naturally resulted in heightened competition in the marketing of aluminum products.

Intense Competition in U. S.

"The current excess production capacity and oversupply of metal have resulted in unusually intense competition in the U. S. aluminum industry, and, for the present, a generally unfavorable price structure from the standpoint of profits, particularly for semi-fabricated and mill products. But it has also opened the door to new applications where an inadequate supply of metal would have been a decided handicap. From a long term standpoint, none of the basic aluminum producers has any great concern about over-supply. There are substantial untapped markets both here and abroad.

"One of the important prospects for a growth industry in the Sixties is the population increase which has been taking place for some time. According to current estimates, world population is growing at a present rate of about 4,000 per hour and will increase by more than 350 million in the next ten years.

"In the United States, where there has been greater market development than in any other country, the average per capita consumption in 1960 will be approximately 27 pounds. For the entire world, the figure is only a little more than 3 pounds, according to the best estimates available. It is apparent that there is much room for increased use of aluminum both at home and abroad.

". . . many opportunities exist in the Free World, and their markets seem eager for the advantages that aluminum can offer. India, for example, had a population of approximately 410 million in 1959, and an average per capita consumption of only two-tenths of a pound of aluminum. By 1970, its population is expected to increase to 504 million and only a small increase in the use of aluminum per capita would mean a substantial volume of aluminum products. Western Europe and the United Kingdom together had a population of about 337 million in 1959, and an average per capita consumption of approximately 8 pounds. Although its population is expected to reach only about 360 million by 1970, its use of aluminum is expected to increase about 75% in the next decade. Comparable opportunities seem to exist everywhere.

"The history of the aluminum industry has been one of continual search for new markets. Through the years, large sums have been spent for research and development, and every effort has been made to gain acceptance for aluminum in applications for which its many natural advantages made it best suited. The resulting growth has been almost legendary.

"As we enter a new decade, there is no reason for believing that this pattern will change. The markets which lie ahead are even greater than those already gained, and the industry's ability to supply them is at an unprecedented level. Throughout the industry, there is a pioneering spirit that breeds progress. I feel confident that we can look for a great increase in the use of aluminum both at home and abroad, and that the Sixties will be a period of impressive growth for the aluminum industry."

'OUTLOOK FOR COPPER'

The following quotations from the address of Mr. Vuillequez on the subject "Outlook for Copper, Lead and Zinc" reflects his strong confidence in the future of these basic and long established metals:

"From a marketing point of view, the three metals have had much in common in the past. Most producers paid little attention to the end consumer. The view seemed to prevail that the three metals would sell themselves; that the quantities consumed were largely a function of industrial activity; and that the producers of these metals could do little, if anything, to increase uses. The challenge of new products such as aluminum and plastics forced a drastic change in marketing practices.

"About three years ago the lead and zinc producers who individually had been doing little in the way of research for new uses and technical sales development came to the realization that the only real solution was to increase consumption of these two metals. Thus, they formed what is called the Expanded Research Program of the American Zinc Institute and Lead Industries Association. Despite the short period since establishment of these expanded programs, there have already been fruitful results. For example, American Zinc Institute has developed improved processes for the chromium plating of zinc die castings. There have been encouraging developments for the use of lead for the attenuation of sound and as an anti-vibration material.

"The copper producers recently formed the Copper Products Development Association, the objectives of which will be similar to lead and zinc. Supplementing the work that will be done by Copper Products Development Association, individual producers and fabricators will continue to foster the use of products containing copper by their own technical sales efforts.

"But these programs are long range. They cannot produce miracles overnight. That they will have the result of increasing the uses of the three metals, there is, in my opinion, no doubt whatsoever. Essentially this work is similar in principle to what was and is being done individually by the chief competitors of the three metals, aluminum, steel and plastics. We expect to improve on their techniques.

"There are so many new uses which can add to copper's consumption—electronics, missiles, atomic energy, and electric house heating. It should be possible to develop new applications in existing markets such as sprinkler systems, roof shingles, and industrial furnace linings. Copper is very adaptable to alloying; its alloys are almost numberless. We believe that copper consumption in the United States is likely to grow at a rate slightly less than the expected growth in the U. S. economy. Industrial production by 1970 may be 63% above the 1959 average. The consumption of copper by 1970 may be about 40% greater than in 1959.

". . . we think that consumption outside of the U. S. by 1970 may be 60% greater than in 1959. Consumption outside the U. S. in 1959 was 84% higher than consumption in 1948. The Free World's apparent consumption of refined copper in 1959 was about 3,800,000 short tons, of which the U. S. accounted for about 1,500,000 short tons. By 1970 we expect this Free World consumption to be about 5,800,000 short tons, of which the U. S. would consume about 2,100,000.

Steel Strike Hurt Zinc

"Because of the steel strike last year a comparison of the consumption of zinc during 1948 and 1959 is misleading. We estimate that had it not been for the steel strike, an additional 100,000 tons of zinc might well have been used. Thus, the comparison between 1948 and 1959 would have shown a growth during this period of about 30%.

"Zinc has developed a strong position for galvanizing because of the development of the continuous galvanizing lines for galvanized sheet. . . . Galvanized steel sheets contain about 6% zinc so that the price of zinc is not a determining factor in the economics of these sheets as compared to substitute materials.

"New alloys of zinc may be developed which would provide new uses for rolled zinc and make zinc more competitive for certain present uses. The second largest market for zinc is for die casting. Here the competition between zinc and aluminum and plastics is keen. The growth of the die casting industry is closely related to the automobile industry and to sales of appliances. . . . Taking all of the factors available to us, our projections indicate that zinc consumption in the Free World, by 1970, should increase by about 55%. This is very much the same as our projected increase of copper consumption.

"Since 1948 the consumption of lead in the U. S. has shown no increase in total. While there have been increases in gasoline, batteries, and certain other uses, these have been offset by declines, chiefly in cable covering. However, we think that the losses in these uses have been arrested and that the growth in batteries and gasoline will continue. Without giving allowance to new uses, which we think will be developed but which are not yet a fact, we calculate that the growth of consumption in the Free World by 1970 may be about 30% over 1959. . . . In our opinion, lead has a great potential in the battle against noise and vibration, in porcelain enamels for steel and aluminum, in glazes for brick and new structural clay products, in electronics and in new paint pigments. It is not possible at this time to measure this potential, but it is a great big plus factor.

"I believe that copper, lead and zinc are emerging from a long period of restrained growth and that the future of these three metals is far brighter than was the past. I have great faith in the continued growth of the economy of the U. S., and of the world. I have equally great faith in the accelerated growth of consumption of copper, lead and zinc."

SPECIALTY METALS' OUTLOOK

In the course of his presentation of "Specialty Metals—Outlook for the Sixties," Dr. Driggs made the following statements:

"I am . . . aware that as Security Analysts you are intensely interested in forecasts. I will thus attempt to gain your immediate attention by forecasting that the so-called 'specialty metals' will, in my opinion, show the greatest percentage of growth of all metals, either ferrous or nonferrous, in the coming decade of the 60's.

"By the term 'specialty metals' as used in this particular talk, we refer to those elementary metals which are either relatively new or have not to date attained any large scale or general commercial importance. They have variously been referred to as rare, exotic, unusual, little known, refractory and various other terms. Actually they number some 20 to 30 elements altogether, and some are probably destined to remain obscure for a few more years. In my discussion I shall mention only a few of the better known ones whose immediate future growth seems assured."

"In the first place, I think we are all fairly well agreed that the 1960's will be characterized by a large scale development and growth in the following areas: Atomic energy, supersonic travel, missiles and satellites, and interlunar travel.

". . . in the above areas, it must be pointed out that successful operation and development will demand: properties and characteristics which are not available at present among the more prosaic metals, or a higher order of magnitude in respect to these properties and characteristics than are presently exhibited by the better known metals and materials.

"It should be distinctly understood and emphasized that large scale growth and development during the 60's will not be limited to the four areas mentioned above, and it also should be emphasized that the 'specialty metals' will find applications of major importance in other growth fields, such as electronics, direct conversion of heat to electric power, chemical industry, corrosion resistant applications, and many others.

"While in the throes of forecasting fever, I will also risk the usual fate of forecasters by stating that advances and growth in the above areas, during the next decade, will exceed by many times the total growth and development to date in these same areas since their inception. The pace of technological development is constantly increasing.

"Missiles, satellites and supersonic travel are products of the 50's. This time they should mature in the 60's. I seriously doubt that the term 'specialty metals' would be appropriate for a discussion of these metals 10 years hence."

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The Paper Industry

Chairman: *Lawrence K. Gessner*
Smith, Barney & Co.

Speakers at the Paper Forum were: George Olmsted, Jr., president, S. D. Warren Co.; R. Carl Chandler, board chairman of Standard Packaging Corp.; and Harrison F. Dunning, vice president, Scott Paper Co.

"White paper is still one-quarter of the over-all industry production and, because of imports of newsprint from Canada, about one-third of United States consumption."

Thus, did Mr. Olmsted direct his opening remarks on "The Outlook for the White Paper Industry." Excerpts from his address follow:

"Just where do we stand at the moment?

"The printing paper mills are so far this year running at 96% of all-out capacity. This isn't 96% of six-day capacity. This is 96% of chock-a-block full, all-out running.

"On the same all-out basis the business paper mills are running about 90%—while the newsprint mills are at 85%. This latter percentage on newsprint may appear to be a low and dangerous figure, but it must be remembered that this year's production is substantially beyond last year's—the first quarter of 1960 having seen the largest production of domestic newsprint ever made in this country.

"So the operating rates in white paper at the moment are both reasonable and encouraging — and are good enough to permit higher profit levels. When the first quarter returns are all in, it is my guess that they will show profit increases from white paper in the range of 10% over last year's comparable period. Not gaudy, perhaps—but at least neat.

"Moreover, we are not plagued with too many known capacity increases ahead of us — and please note that I say *known* capacity increases. Nothing definite is planned for the newsprint field. It has plenty of capacity already, though we hear rumors that some new newsprint mills are being considered. In printing papers, for the three years 1960 through 1962, there will be a modest 8% increase in capacity, which is less than the normal growth of about 3½% per year. In business papers, there will be a 15% growth in capacity over the three-year span. This is somewhat in excess of the normal growth of about 3½% per year in this segment —but by no means disastrously so. . . .

"I am sure, however, that you are mainly concerned with the profits of our industry, and with a price level which will permit a proper return on investment and a gradual appreciation of stock values over the years ahead. So let's face up to that problem—the problem of cost-price relationship.

"We must remember that from war's end through 1956 the white paper industry was largely in an oversold position — where demand exceeded supply and where, as a result, the normal competitive pressures were lacking.

"This 'high on the hog' style of living led us into bad habits, bad habits in two directions. First we predicated our prices on the hourly operating costs of *depreciated* equipment. And second we predicated our prices on full, all-out running, and full running, even though we might wish it to be so, is not a normal circumstance.

"But after 1956, the industry built supply ahead of demand. As a consequence operating rates dropped. Competition again got out its chopping block and axe. And because of all this, and as you well know, the level of profit in the paper industry—the rate of return—drifted lower. All of this is a natural sequence of events —though not an appetizing one. . . .

"So—our market *will* widen. Our market *will* grow. And, best of all from your viewpoint, it will be a *stable* growth. No skyrockets that go up with a big whing-ding and then drop with a thud. Just steady and persistent betterment of a situation. The white paper industry has the sort of security that you put away in the box—feeling as certain as you can that it will be worth more 10 years from now than it is today."

Sees New Heights for Paper

"New records of per capita demand will have been established for the packaging segment of the paper industry" by 1970, according to Mr. Chandler speaking on "The Current Status and Outlook for the Packaging Segment of the Paper Industry." Excerpts from his address follow:

"It is interesting to note that the dollars expended for consumer-type paper packaging vs. paper shipping containers represented about 57% in 1958. The total figure for paper packaging for the year 1959 has been estimated at approximately $5,600,000,000.

"The quantity of all containers and packaging materials produced or shipped during the 1950's increased at an average rate of slightly more than 3% per year, or at approximately the same rate of growth of the national economy, as measured by the Gross National Product based on 1957 constant dollars and the index of total industrial output. Despite the *normal* or *average* pattern for all containers and packaging industries, an above-average growth occurred in paper and glass containers and in transparent films for packaging.

"In the paper container area, major gains occurred in paper bags, corrugated shipping containers, frozen food cartons, round nested containers, and paper milk containers, with the latter averaging about a 14% per year gain for the period 1950-1959. All types of paper packaging containers increased at a rate of about 4.1% per year during the period 1950-1959.

"In general, during the 10-year period of the 1950's, the major growth impetus of the packaging field came from consumer-type containers. Based on the 1950 value, consumer-type containers increased 43% by 1959, whereas all shipping containers increased only 17%. The growth of shipping containers was largely the result of a consistent up-trend in the growth of corrugated shipping containers, which increased about 40% from 1950-1959. . . .

"Today, about 65-70% of the corrugated containers are produced by integrated operators; about 65-70% of multi-wall sacks are produced by integrated mills; about 70-75% of the grocery bags are produced by integrated operators; and an estimated 50% of folding cartons are produced by companies having their own mills."

Sanitary Paper Sales Climb

Speaking on "The Current Status and Outlook for the Sanitary Paper Industry," Mr. Dunning stated that "the trend towards diversification of product line continues with the consumer demanding more and more color choices and desiring more multi-pack units than single units in her paper products." Excerpts from his talk follow:

"There is more research in the physical sciences in the paper industry today than there ever has been before, just as there is in many other industries, and this, of course, must necessarily result in new products. This has very positive implication for the future; however, it must be kept in mind that the introduction of new products to the grocery trade is a frightfully expensive maneuver and takes a lot of time. We estimate that if we can carry a new product from the idea to the market stage in five to seven years, we have done very well indeed—but it is a very expensive process indeed. Therefore, there is a limit to the number of new products that can be placed in national distribution each year, because it is obvious that new products exert additional pressure on profits in the early years. . . .

"Our branch of the paper industry is much less susceptible to business cycles than many industries. In fact it has, on occasion, been called a 'depression proof' industry. That latter statement is going a bit too far, in my opinion; nevertheless, companies manufacturing sanitary papers do have important defensive characteristics. There is a cyclical aspect to our business, however, which comes about because the capital investment per dollar of sales is high—as compared with the drug and grocery industries. Therefore manufacturers are reluctant to okay capital investment for expansion unless they are pretty sure they are going to have a ready outlet for their product. . . .

"From the time the market has first indicated a need for more merchandise, until you can decide upon, engineer, build and start additional facilities takes nearly two years. This is why we occasionally go through a period of very tight supply against demand and, of course, at such a time the so-called private label brands tend to disappear from the market place because the possessors of the machines that were making the private label merchandise can more profitably sell that product as branded merchandise, or can convert to other more profitable paper lines. . . .

"So the major problem facing our industry is—profits. As the available woodlands become fewer in number, the price of woodlands continues to rise. This, of course, exerts pressure upon the cost of our basic raw material. The pressure on our wage costs is constant as it is in all industries today; wages always seem to go up each time the negotiating cycle comes around again. . . .

"With a total market roughly the size of the United States, I will hazard a guess that the next 10 years, barring war, will bee the most rapid advance in standards of living and, consequently, the usage of sanitary papers and others that's ever taken place in the history of these European countries. I don't think the situation is much different in many of the other areas of the world either, and so I feel that we are going to find sanitary paper not only a growing proposition in these United States, but even more dramatically the world over."

CONVENTION FIELD TRIPS

U. S. STEEL — PHILCO CORP. PENNSYLVANIA RAILROAD

Trip Chairman: James K. Miller
Dominick & Dominick

Left New York City at 7:45 a.m. Hosts were Pennsylvania Railroad officials, including David Bevan, vice president of finance; P. D. Fox, assistant vice president of finance; William Gerstnecker, treasurer; Robert Haslett, director of investments; and H. J. Ward, comptroller. About 150 Analysts headed for the U. S. Steel Fairless Works at Morrisville, New Jersey. Several hours were spent touring this company's modernized facilities, built some eight years ago at a cost of $500 million, equivalent, including working capital and cost of facilities providing raw materials, to $500 per ton of installed capacity.

Lunch was served through the courtesy of the U. S. Steel Corp. in the plant cafeteria. Brief addresses were made by Leslie P. Worthington, president, and R. C. Tyson, chairman, finance committee.

Highlights of Mr. Tyson's address included information that in 1960 capital expenditures in excess of $400 million would be made by the U. S. Steel Corporation, a sum contrasting with $320 million of such expenditures made in 1959. Mr. Tyson also sought analyst approval in combatting onerous Treasury regulations whereby insufficient depreciation charges were permitted to be set up to enable all corporations to replace their existing facilities, particularly during inflationary periods.

The Analysts then inspected the television plant of Philco Corporation in Philadelphia, wherein they saw the intricate steps by which a television set is manufactured and assembled from a printed circuit to the final product. As the group progressed along this manufacturing line, guides described the various manufacturing processes. Shipping methods, by which sets were loaded in cartons in specialized DF freight cars, were of particular interest to railroad analysts.

Final inspections of the day included stops at both the iron ore and the coal loading and unloading facilities in South Philadelphia, as well as the Pennsylvania Railroad Produce Terminal, all of which facilities were built within the past decade. Pennsylvania Railroad obtains large freight tonnages from these facilities.

Prior to boarding the train for the return trip (our Pennsylvania hosts graciously providing the Analysts with refreshments and dinner) our group was met by an impressive list of Pennsylvania officials including Fred Carpi, vice president of sales; James Newell, vice president of operations; John Prizer, vice president and general counsel; and J. B. Jones, vice president of purchase and real estate. The company's new president, A. J. Greenough, spoke briefly about the problems of the railroad, and a brief question and answer period followed. The Analysts were loud in praise of all arrangements made and express their appreciation to our three "host" companies: Pennsylvania Railroad, U. S. Steel, and Philco Corp., for their manifest courtesies and co-operation.

—*P. R. B.*

* * *

INT'L. BUSINESS MACHINES

Trip Chairman: Allan Cornell Poole
Hemphill, Noyes & Co.

Analysts on this tour left Grand Central Station, at 7:35 a.m., for Poughkeepsie. On arrival, at 9:25 a.m., buses took them to the research laboratory. Following this, they were told about IBM's research programs, including those in cryogenics and transistors. After luncheon at the company's country club, a plant tour served to inform Analysts with the latest manufacturing techniques, with emphasis on assembly lines of the most important products, including the transistor and 7070.

ESSO RESEARCH — STANDARD OIL CO. (N. J.)

Trip Chairman: Michael Kourday
Hayden, Stone & Co.

Guests were transported to Esso's Research Center by boat through New York's harbor to Esso's Bayway Refinery at Linden, N. J. En route, Analysts had the opportunity of talking with company officials. Following a bus tour of the Bayway Refinery, Leo D. Welch, Jersey Standard's chairman of the board, opened the program with a talk about Jersey's world-wide operations and future prospects. Eger V. Murphree, president of Esso Research and Engineering Co., and senior executives, discussed various aspects of this organization's research activities, with emphasis on new petroleum products and petrochemicals.

Following lunch, the Analysts, in small groups, toured the laboratories and saw demonstrations of plastic road surfacing methods and other new product applications. Then, C. O. Tongberg, executive vice president of Esso Research, discussed crude oil production, research, and long-range prospects.

* * *

AMERICAN SMELTING

Trip Chairman: Ralph Wm. Michaud
Dean Witter & Co.

Visitors toured the Perth Amboy, N. J., plant and saw basic nonferrous metal smelting and refining operations for lead and copper, as well as secondary refining operations in aluminum, and brass and bronze. They also saw Asarco's copper continuous casting operations, which are new and which have been called the most important metallurgical development in copper production in the past half-century. The continuous casting of bronze rods, tubes and shapes were a high point of interest. John D. MacKenzie, chairman and president, and Forrest G. Hamrick, vice president and treasurer, were luncheon speakers.

GENERAL DYNAMICS CORP. — ELECTRIC BOAT DIVISION

Trip Chairman: James J. Quinn
Financial Consultant in Aviation

A private car on the New York, New Haven and Hartford Railway took Analysts to the New London, Conn., plant of the Electric Boat Division where they were greeted by Carl Shugg, president. Dr. Herman E. Sheets, head of the Robinson Research Laboratory (stressing underwater research, commercial applications and engineering) spoke briefly. A tour of the shipyard facilities followed. A Fleet Ballistic Missile (Polaris) type submarine was viewed in the shipways, and to the extent that security permitted, discussed.

* * *

UNITED STATES GYPSUM

Trip Chairman: Mrs. Jane L. Brett
A. G. Becker & Co., Inc.

A drive across the Hudson River and up the scenic Storm King Highway brought Analysts to the new Stony Point plant which produces gypsum wallboard and plaster. This facility is an important one in the U. S. Gypsum network of 28 U. S. plants—which produce about 50% of the gypsum wallboard and plaster sold yearly. Clarence H. Shaver, board chairman, and F. L. Stellner, secretary-treasurer, accompanied the group. At Stony Point, Analysts were given the opportunity of seeing the most modern and efficient gypsum production methods.

* * *

UNION CARBIDE CORP.

Trip Chairman: Ralph W. H. Geer
Laird & Company Corp.

This company's Bound Brook, N. J., plant and laboratories constitute one of the world's leading centers for plastics technology. Products include polystyrene, phenolic and epoxy resins and compounds; polyethylene compounds; and vinyl compounds, film and sheeting. The Research and Development Center is a large, modern facility equipped with a diversity of advanced plastics manufacturing, testing and fabrication equipment. These laboratories evolve and test new monomers, polymers and processes, and develop fabrication techniques for the industry. Speakers included W. B. Humes, A. A. Boehm and J. D. Benedito, vice presidents of Union Carbide Plastics Co. Division, as well as Borden Helmer, economist, and others of the parent company.

* * *

WESTERN UNION TELEGRAPH

Trip Chairman: Maurice E. Dixon
Merrill Lynch, Pierce, Fenner & Smith, Inc.

The company's downtown offices were visited. Guided tours covered Western Union's activities in research and engineering; leaded private wire systems; data transmission microwave radio; facsimile; and Telex. S. M. Barr, vice president-planning, spoke about the company's long-range plans. Walter P. Marshall, president, and other top executives spoke about Western Union's operations and progress.

* * *

RADIO CORP. OF AMERICA

Trip Chairman: Thomas Hugh Lenagh
Goodbody & Co.

The David Sarnoff Research Center, Princeton, N. J., was the port-of-call for Analysts on this trip. It is one of the world's largest laboratories devoted exclusively to advanced research in electronics. Among its major achievements have been color television, advanced techniques in electronic computing, electronic cooling, and outstanding contributions in acoustics and sound reproduction.

Demonstrations and discussions covered current research in such fields as ultra-high-speed computing, extreme miniaturization, new concepts of power conversion, and advances in television and sound systems — all pointing to electronic products and services that are scheduled to appear, five to ten years from now. Dr. James Hillier, vice president in charge of the RCA Laboratories, spoke to the Analysts.

BELL LABORATORIES — CONSOLIDATED EDISON

Trip Chairman: Alvord D. F. Stearns
The Hanover Bank

Guests were conducted through busy portions of the service areas of two of New York's electric and gas utilities: Consolidated Edison and Public Service Electric & Gas. Murray Hill Bell Laboratories, in New Jersey, were also visited. Information was provided about transistors, traveling wave tubes, memory tubes, pulse code modulation, zone refining, electronic switching and ladder logic.

L. Chester May, treasurer of American Telephone & Telegraph, addressed the group at luncheon. Then, Con Edison's $100,000,000 nuclear electric generating station (built entirely with private funds and scheduled for operation within a year), were inspected. And while condensors, generators, and boilers were familiar terms to Financial Security Analysts, containment spheres, radiation shields, reactor vessels, moderators, core lines and fuel rods were words that had added significance after touring this technological milepost of utility progress.

* * *

EASTMAN KODAK COMPANY

Trip Chairman: Ralph W. H. Geer
Laird & Company Corp.

This was an overnight trip to the world's major manufacturer of photographic materials and equipment. Analysts visited Rochester, N. Y., where the company's administrative headquarters and principal manufacturing operations are located.

A general tour was made of the Kodak Park works, a facility covering some 1,000 acres with nearly 150 major manufacturing buildings where approximately 20,000 persons are employed. On the tour, Analysts observed some of the basic processes involved in the manufacture, inspection and packaging of sensitized photographic materials. Speakers included Dr. Albert K. Chapman, president, and William S. Vaughn, vice president and general manager. There were demonstrations of research progress

BROOKHAVEN LABORATORY

Trip Chairman: Stephen L. Joseph
Wineman, Weiss & Co.

Analysts here had the opportunity of seeing the Cosmotron and the Alternating Gradient Synchrotron, currently under construction. The tour also included the "hot" chemistry laboratory and the biology department. A question and answer period followed, with scientists answering sundry specific questions.

* * *

LADIES PROGRAM

by Mary A. Wrenn
Merrill Lynch, Pierce Fenner
& Smith, Inc.

The secret of a successful party often lies in the guests and the ladies program of the National Convention was a good illustration. There was practically full attendance of the 170 women who signed up for the ladies program at all of the events and we even had two privileged men at the luncheon on Monday and on the Circle Line tour on Tuesday.

To plan a program in New York is almost more difficult than in a smaller city, since there are so many diverse and interesting events competing for one's time. And so the committee tried to put ourselves in our guests' place and came up with a program which was designed to offer a mixture of finance (for we are Financial Analysts).

With the aid of the Gray Line bus services, and the chivalry of the New York Police Department (we understand the men were not quite so lucky), we left the convention headquarters on Monday morning for a visit and luncheon at the spanking new headquarters of *The New York Society of Security Analysts.* Our luncheon speaker, Mrs. Margaret Kennedy, who is president of the Women's Bond Club of New York and one of the few women to achieve the position of partnership in a Wall Street firm, discussed the growing role of women in the financial field and the need for wives to have some knowledge of finance. One of the wives commented afterwards that she wished the husbands were there to hear Mrs. Kennedy, and all of the wives from the New York area agreed they would no longer heed the comments of hubby's "hard day at the office and the long N.Y.S.S.A. luncheon." A tour of the head offices of Merrill Lynch, Pierce, Fenner & Smith — including a view of the electronic equipment and complicated wire system which speeds the orders from all parts of the world back to New York to effect stock transactions and then to the New York Stock Exchange to watch the actual operations on the floor—completed the day and gave us enough topics for conversation for the afternoon cocktail party with the men.

Tuesday was a beautiful May day in New York, the kind that makes the city famous. And good weather was so important, for following a tour of the Design Center for Interiors and the United Nations, this was the day for our Circle Line tour around Manhattan, sponsored by the General Telephone and Electronics Company. General Telephone, under the direction of John J. Burke, Jr., did a magnificent job of entertainment and even was so thoughtful to provide sun glasses and kerchiefs to protect us from the sun and the sea breezes. The trip itself was exciting, for it is a wonderful way to see all of Manhattan Island and the important landmarks in perspective.

Ladies Program Committee Chairman Mary Anne Wrenn, center, is shown with six committee members. They are, left to right, Mrs. Miriam Dixon, and Mlles. Marjorie Cruthers, Helen M. Garvey, Doris Maydin, Marjorie Jones and Peggy Schulder. All are Financial Security Analysts and members of the New York Society of Security Analysts.

But seldom can one do it so pleasantly with cocktails and a delicious luncheon catered by the Savarin. (A reporter from one of the New York newspapers did take advantage of the relaxed moods of the wives to ask the practical question as to what a Financial Analyst was like at home. See accompanying article). Only Hamilton Bolton, president of the National Federation, who joined our party, was there to defend the men.

When the three and one-half hours were up we were somewhat reluctant to leave the boat, but, armed with the gifts from General Telephone, including a new Sylvania nite light, we reluctantly boarded the buses to return to the Waldorf refreshed and ready for the Annual Banquet.

We had had two beautiful days, weatherwise; so that when we awakened to rain on Wednesday morning we could not rightfully complain, especially since our final event was well protected from the elements. Since most of the men were going on field trips we planned a brunch (a large breakfast for non-New Yorkers) at the Cotillion Room of the plush Hotel Pierre. The quiet coolness of the Cotillion Room was a nice contrast to the excitement of the previous evening, and while we leisurely sipped our second cup of coffee the Bonwit Teller Division of Genesco provided a delightful fashion show. Miss Lottie Thompson, director of public relations of Bonwit Teller, chose a selection of fashions appealing to all with just the right mixture to suit our pocketbooks. (I hope the men agree since many of the women asked directions to Bonwit's afterwards.)

As Financial Analysts, the committee had a challenge in planning a program for wives, but when the convention ended we all agreed that we had a thoroughly wonderful time, and judged by the enthusiasm of our guests they did too. We may have omitted some sites that many of the women would have liked to have seen. But that is the wonderful thing about New York: we can look forward to including those at the next convention here!

Boat Ride Secrets

The Missus Handles the Long Green In Typical Security Analyst's Home

By Mary C. Stokes

A survey, made after three ginger ales and without the statistical controls of George Gallup and Elmo Roper, gives some revealing facts about Security Analysts, the men who research into what stocks to buy and sell:

1. They are not methodical at home.
2. They let their wives keep their checkbooks with a little supervision.
3. Their hobbies range from gardening to electronics.
4. Their wives run their homes, but when it comes to family investments, they make the decisions.

All this was gleaned on a trip around Manhattan aboard the Circle Line XII from Hamilton Bolton, outgoing president of the National Federation of Financial Analysts Societies, and from four analytical wives.

The trip, sponsored by General Telephone & Electronics Corp., was for wives only, except for Mr. Bolton, who took a president's prerogative and came along.

The wives were 100 percent unanimous about the fact their husbands were not methodical. Mrs. Bolton said her husband never picks up around the house, but "he is very good about repairs."

Mrs. Howard C. Tharsing of San Francisco confessed "my husband is not methodical around the house. He is in his work, I guess."

"I refuse to answer on grounds it might incriminate me," was Mrs. L. H. Smith's reply. Her husband is with Dean Witter & Co. in Los Angeles.

Mrs. G. H. Palmer reported her spouse, who is with the National City Bank of Cleveland, relaxes when he comes home.

On the subject of checkbooks one of the wives explained: "I write the checks and my husband figures it all out at the end of the month. That makes it a joint account."

Only one wife said she was hopeless in this department herself. "My husband is a fine Analyst," she vouched. "He seems to know exactly what I've done after a shopping spree."

The wives were in complete agreement that they leave family investments "to our financial advisers."

The Security Analysts sounded like good husband material. Mr. Bolton said he takes his wife breakfast in bed, Monday through Friday. She brings his on Saturday and Sunday.

Hobbies ran the gamut. Mrs. Bolton said her husband likes music, radio and electronics. "He builds those awful fiddly things."

Mrs. Smith described her lord and master as a "seawall sailor." "He sits on a seawall (at Newport Beach, Calif.) and watches our children sail."

All the husbands majored in economics and found somewhere along the line they liked security analysis. Mr. Bolton said he used to be in underwriting. "I had to start my own firm (Bolton, Tremblay & Co. of Montreal) to get into analysis."

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AMAX

American Metal Climax, Inc.

COMMON STOCK

Dividend No. 138

The Board of Directors has declared a dividend of Thirty Cents (30¢) per share on the Common Stock payable June 1, 1960 to stockholders of record at the close of business on May 20, 1960.

D. J. DONAHUE,
Treasurer.

CONSOLIDATED NATURAL GAS COMPANY

30 Rockefeller Plaza
New York 20, N. Y.

DIVIDEND NO. 50

THE BOARD OF DIRECTORS has this day declared a regular quarterly dividend of Fifty-Five Cents (55¢) per share on the capital stock of the Company, payable August 15, 1960 to stockholders of record at the close of business July 15, 1960.

JOHN MILLER, Secretary

June 8, 1960

Investment Theories and Applications

by David Norr

THEORIES PROVIDE A LOGICAL FOCUSING ON PURPOSE OF INVESTMENT.

Is it possible for investors to formulate a theory of investing? Is there a way of rationalizing the investment process to reduce to a manageable level the flow of services, newspapers, articles and plethora of corporate detail apparently so necessary to investment decisions? Is there a point of view, an approach, which will provide a coherent framework for investing?

There is a superabundant concern with levels of stock prices. There is concern with economic background and forecasts. There is concern with corporate information and field trips. But little effort has been made to classify the underlying reasons for selecting various securities.

With the thought that some codification may be useful in sharpening our investment decisions, a few theories are set forth.

THEORIES

It has been the writer's experience that successful investments may be achieved in several ways. Use of any one method, or a judicious combination of methods. To some extent, the technique chosen will depend on the personality and proclivities of the investor. I believe the theories with their attempt to understand the investment process reduce intangible ingredients, such as foresight, considerably. The theories are no substitute for capital and courage.

There are five approaches of theories to common stock investment: (1) leading companies: (2) asset values; (3) economic trends; (4) breakthrough; and (5) low price earnings ratio.

Leading Companies

Purchase of the obvious, large, well-known companies in the economic scene, has long been a cornerstone of investment policy. Purchases are often confined to blue chip securities. The role is used to a significant extent by fiduciaries. It is a desirable course for the average individual not too familiar with finance. It has been rewarding for the most sophisticated investor as well.

Purchase of such blue chips as American Telephone, Dow, Sears Roebuck, General Electric, U. S. Steel, and General Motors, and other industrial giants has made for a quality list and a profitable list. Indeed, the earnings of the companies comprising the Dow Jones Industrials have grown at a more rapid rate in the postwar period than all corporation profits. It is of course ironic that year after year many investment trusts have difficulty matching the record of the Dow Jones' averages.

Behind this approach is the safety in the larger, better-financed companies with a lengthy history. There is the belief in continued growth ahead. Indeed, the dominant companies may be, for financial and other reasons, in a position to undertake the research and other activities necessary to perpetuate themselves as stronger entities than ever before. Management of these companies is relied on to adopt the policy changes needed to surmount new problems. Investors may adopt a passive investment attitude after making their commitments in these securities.

Over the years, this approach has been very successful. I see no reason why this program should be wanting in the future.

Assets

The second theory of investment is the classic Analysts' approach made popular by Graham and Dodd. This approach focuses on assets. It does not lead to a list of blue chips. On the contrary, it usually leads to investing in a bewildering series of companies with an array of problems. These are the companies said to be worth more dead than alive. As you know, from time to time (sometimes for cyclical reasons) assets fail to earn their keep, losses are suffered, and the market price of a stock may decline below book value — and then below working capital. Prospects for a company seem dim, investors become discouraged, sell their shares to invest in a company with earnings and a satisfactory price earnings ratio. In time, assets should again be of value and regain some earning power. Management, it is hoped, will lead an onslaught on costs, attempt to pare losses, and save the sinking ship. Where management fails, a new group must step in and lead the attack.

Cessation of operations in an unprofitable division is one step in revamping the picture. Another means would be the sale of assets whose market value is well above book value, as in the case of real estate in Twentieth Century, or timberlands in Atlas Plywood. Utilization of a tax loss, attempted by Studebaker, or liquidation of assets and conversion to cash by Natus, may be attempted to eliminate the discount of market price from asset value.

Where successful, there have been some dramatic advances in security prices under this theory. While we have been for sometime in a period of good earnings where growth is the catchword, this approach still retains its validity. A yearly record, appropriately titled "Sleeping Beauties Between the Sheets" prepared by Hudson, lists several hundred examples of candidates.

For some investors this approach is very satisfying. For them, the substantial assets provide a bench mark

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David Norr holds a B.A. from Columbia College where he was elected to Phi Beta Kappa, and a M.B.A. from Columbia Graduate School of Business. He is a certified public accountant, and a Financial Security Analyst with Burnham and Company.

THE TOOLS OF FUTURE LIVING ARE IN TEST TUBES TODAY

Food, fibers, the materials and equipment which provide shelter and warmth, the vehicles in which we ride and fly through space . . . these will greatly change in the years ahead. • Many of the advances in the tools of living will come from the research laboratories of progressive manufacturers. • Stauffer Chemical Company —for 75 years a producer of basic chemicals for basic industry—spends millions of dollars annually on basic research in the use and application of chemicals for industry, agriculture and national security. • Metals and alloys of new high purity and superior characteristics to meet the needs of space craft, catalysts to speed processing and increase the yields of raw materials, novel agricultural chemicals to fight the myriad kinds of insects which seek to devour our food and fiber supplies . . . these are the objects of research and development in Stauffer laboratories from coast to coast. • One of the latest of Stauffer enterprises is the Research and Development Center now under construction at Richmond, California. Here the growing staff of Stauffer research chemists and engineers will continue their efforts to broaden the applications of chemicals to future living.

STAUFFER CHEMICAL COMPANY
380 Madison Avenue, New York 17, New York

and assurance which no theory of price earnings ratios can achieve.

Economic Trends

First, I do not mean buying a group of stocks when they are popular market purchases. I refer to that understanding of business which permits you to realize the key factors at work and to anticipate their unfolding.

For example, a few years ago I used a theory "buy into areas of shortage." This was nothing other than supply and demand at work. When commodities are in short supply prices creep up raising profits, expansion plans are undertaken and the increased output may further boost profits, and with that stock prices tend to reflect higher earnings. Nickel, sulphur, copper, oil, cement, were some past examples of commodities in short supply.

Obviously shortages do not last forever. New supplies may ultimately be equal to demand; substitutes may be used as prices climb; and demand may fall off. Be that as it may, this trend of playing shortages, was quite successful. With our ability to produce there are few discernible shortages today. One recent shortage was money, and certainly purchase of bank stocks—and more important, commercial factors — would be an application of a trend, shortages.

Another recent trend in evidence was the cycle in meat packing. A packer will buy, e.g., a 225 lb. hog. This price a year ago was about $19 per cwt. This was his raw material cost. After slaughtering, the value of the products derived from each 100 lbs. of live hog were worth $20.88. This was a margin of $1.88. Then, under the impact of record hog production in 1959, hog prices declined. Traditionally these prices decline more rapidly than the wholesale products derived from 100 lbs. of live hog. By the end of 1959 the spread was $2.32 per 100 lbs. Hogs cost about $13 per cwt, with the products worth $15.32. Thus, Morrell had excellent results in fiscal 1959.

Now, in response to low hog prices, the trend reversed itself. Meanwhile the high cattle inventories should be translated in time to increased marketings; greater supplies will force prices down permitting better profits. If a hog cycle should coincide with a beef cycle, earnings will be unusually good.

In general, cyclical issues tend to lend themselves to this theory of analysis. As the economy rolls on and changes, new elements are brought to bear permitting focus on some area. Understanding the play of forces involved permits anticipation and is the means of taking advantage of economic trends.

But this approach holds true for any economic trend, such as one permitting above average growth. Thus, California's savings and loan associations are aided by climate, population growth, mobility and housing turnover—and the increasing role of savings and loan associations in the housing market. Also, with high levels of prosperity there has been a vast search for leisure time stocks to benefit from the increasing funds spent on photography, boating, bowling, and travel.

Breakthrough

A breakthrough, such as new product development, provides another formula for investing. Probably the most vivid examples of this theory are newcomers like Polaroid and Texas Instruments. Typically this approach is now associated with research-oriented companies such as electronic firms. Of course, drug companies also illustrate an aspect of this theory. While research may be associated with a technological change, or a breakthrough, oil analysts, in past days, were wont to concentrate on producers in the search for a major addition to reserves and then production and earnings.

In following this concept, it is best combined with a minimum of risk if the new product fails. It seems to me that many small electronic companies are selling at levels which assume major breakthroughs (have been achieved in the laboratory), and that the new or improved products are ready to be put on the as-

STAUFFER PRODUCTS

AGRICULTURAL CHEMICALS DIVISION
Defoliants Fertilizers Fungicides
Grain Fumigants Herbicides
Insecticides and Miticides
Seed Disinfectants Soil Fumigants
Sulfurs, Ground and Refined

ANDERSON CHEMICAL COMPANY DIVISION
Metal-Organics Metal Esters
Research Chemicals Metal Chlorides
Aluminum Acetyl Salicylate

CONSOLIDATED CHEMICAL INDUSTRIES DIVISION
Sulfuric Acid Alums Bone Charcoal
Bone Meal Muriatic Acid
Hydrogen Chloride Ferric Sulfate

INDUSTRIAL CHEMICALS DIVISION
ANIMAL PRODUCTS—Glues Greases
Bone Charcoal Bone Meal
BORON PRODUCTS—Boric Acid
Boron Oxide
COAGULANTS—Aluminum Sulfate
Ferric Sulfate
CHLORINATED SOLVENTS—Chloroform
Carbon Tetrachloride
Methylene Chloride Perchlorethylene
ELECTROCHEMICAL PRODUCTS—Chlorine
Caustic Soda Hydrogen
INDUSTRIAL SULFURS—Refined Flowers
Roll Rubbermakers
Insoluble, Crystex$^{T.M.}$
METAL CHLORIDES—Aluminum Antimony
Boron Columbium Silicon Tantalum
Titanium Zirconium
MINERAL ACIDS—Muriatic Sulfuric
Oleum Hydrogen Chloride
NITRE PRODUCTS—Potassium Nitrate
SULFUR COMPOUNDS—Carbon Disulfide
Sulfur Chlorides Sodium Hydrosulfide
Sodium Sulfate Mesyl Chloride
TARTAR PRODUCTS—Tartaric Acid
Rochelle Salt Cream of Tartar

INTERNATIONAL DIVISION
Products of all Divisions

A. R. MAAS CHEMICAL DIVISION
Phosphoric Acid Phosphates
Photographic Chemicals Questex®

MOLDED PRODUCTS DIVISION
Battery Boxes and Fittings (Rubber, Plastic)
Plastic Foam Plastic Pipe
Miscellaneous Molded Products

NYOTEX CHEMICALS DIVISION
Hydrofluoric Acid, Anhydrous and Aqueous
Aluminum Chloride Aluminum Fluoride

VICTOR CHEMICAL WORKS DIVISION
Phosphorus Phosphoric Acid
Phosphates of—Ammonia, Calcium, Iron,
Potassium, Sodium
Other phosphorus chemicals
Oxalates Formates

WEST END CHEMICAL COMPANY DIVISION
Borax Lime Products Soda Ash
Sodium Sulfate

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sembly line with marked gains in earnings anticipated.

Actually, the breakthrough concept need not be used in a narrow scientific, technological sense where only a physicist can understand the mysteries of linear accelerators and ion propulsion. The development of automatic pinsetters changed bowling and resulted in marked gains in earnings for American Machine and Foundry and Brunswick. A new way of preparing tobacco leaf for the binder of cigars was a significant cost-cutting innovation, apparently ready to be followed by cost-cutting for the wrapper. Photocopy devices in offices indicate the popularity of these machines and the gains in earnings being achieved in the group.

Low Price Earnings Ratio

About once a year, based on some fortuitous combination of events, a company's earnings blaze a meteoric trail through financial history. Based on a new product, unusual demand, and capacity operations, earnings climb dramatically. Often the earnings climb faster than stock prices, so that the price earnings ratio remains abnormally low for a long time. Earnings of Schering, a drug company, rose eight fold from 1954-1956 as a new drug carved a substantial market.

Lukens Steel was another unusual stock, profits quadrupling in 1955-1957. Actually, this might have been classified among those benefitting from economic trend. For Lukens Steel produced heavy plate steel, and this was the common denominator to the capital goods boom. Whether one made railroad equipment, machine tools, or ships, the common product was thick plates of steel. Only a few companies produced this steel and as the capital goods boom gathered steam; prices of plate rose; premium prices were charged; expansion plans were eagerly financed; and earnings moved ahead. Small wonder that the stock advanced many fold in that period.

Subsequently, Lorillard increased earnings six fold in 1956-1958. Within the slowly growing cigarette market one segment, regular cigarettes, declined in popularity while filter tips grew sharply. Lorillard capitalized on this trend with a popular product; the rest is investment history.

More recently, American Motors has been in the limelight. A few years ago this was a working capital situation. Assets, liquid assets, were worth about $9 while the stock sold at $5. Substantial losses were incurred in the business. As compact cars grew in favor, output of Ramblers picked up and, instead of losses, earnings climbed to a $60 million level. The stock advanced over five fold from the time it became quite apparent earnings were re-established to the present.

In the course of these meteoric advances, these stocks attract considerable attention. They became unusually active, and skeptics doubt the permanency of such changes. Many professionals are appalled and ignore such development because they cannot grasp that earnings can and do respond so sharply to developments. Those who do appreciate and understand the economic process are capable of appreciating and benefitting from these developments.

BALTIMORE GAS AND ELECTRIC COMPANY

Serving one of America's Great Industrial Centers

QUARTERLY DIVIDENDS

Dividends of $1.12½ a share on the 4½% Preferred Stock, Series B; $1.00 a share on the 4% Preferred Stock, Series C; and 25 cents a share on the Common Stock, have been declared for the quarter ending June 30, 1960, all payable July 1, 1960, to holders of record at the close of business on June 15, 1960.

J. THEODORE WOLFE, *President*

Dividends paid on the Common Stock continuously for half a century—always earned—never reduced.

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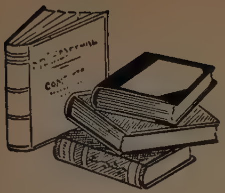

BOOK REVIEWS

States, Contracts and Progress (Dynamics of International Wealth). By Harold M. Fleming. New York: Oceana Publications, Inc. 128 pages. $3.50 cloth, $1.50 paper.

This book spells out briefly, in plain English, some of the facts of life about international investment (and international aid to under-developed countries). The ponderous title is no evidence of the style, which is homely and terse. The title is rather an index, for international lawyers, of the contents.

The first half of this pocket-size book ("Sovereign Governments and Private Enterprise") discusses some expropriations of the last 10 years, particularly that of the Suez Canal, and their discouraging effect on international investment. The second half ("International Circuits of Economic Energy") is a broader discussion of what keeps "under-developed countries" that way, together with some "Economic Success Stories" of some recent "prosperity explosions" under capitalism.

The author's viewpoint may be indicated by a few quotations. About Nasser's assertions of his sovereign rights in taking the Suez Canal Company's properties, Mr. Fleming says: "This view is a reverse-English on the imperial morals of the eighteenth century . . . a double standard of international morality.

"The morality of nationalization without fair payment, which the Russians urge on the under-developed countries . . . recalls the Russian story of the mujik who dreamt he was made Czar. When asked what he did in the dream he replied 'I had bacon for breakfast and stole a thousand rubles.'

"The taking of foreign property for a forced price is not only wrong but a short-sighted blunder. It makes the future promises of such governments look like the cheese in an economic mousetrap. The potential benefits of modern sovereignty are considerably more than a good breakfast on a foreign investor."

The second half of the book has some newer ideas. One is a "dynamic" definition of social wealth (national or international). "It cannot be measured in quantities, but only in rates of flow. . . . It is not a sum of saleable property. It does not exist; it happens."

"Freedom," says the author, "preceded capital accumulation," and he defines the proper role of economics as a branch of dynamics for the increase of "potential" and the decrease of "resistances" to the current of economic energy.

Mr. Fleming scoffs at the new economic "growth" idea which "has suddenly acquired a fashionable context." He calls it "ideological ersatz for what grandfather knew as economic progress."

The book is short enough to read on a non-jet plane between New York and Washington.

* * *

Developing the Corporate Image. Edited by Lee H. Bristol, Jr. New York: Charles Scribner's Sons, 298 pages. $5.95.

Handbook of Public Relations. Edited by Howard Stephenson, LL.D. New York: McGraw-Hill Book Co., Inc. 855 pages. $12.50.

Both of these books are compilations of chapters written by specialists in public relations, plus a few advertising men and editors connected with major magazines, newspapers and radio-TV networks.

The Bristol book deals with a facet of overall corporation public relations—the corporate image, or personality. It concerns the picture which an organization has created in the minds of its various publics. Market research long ago exposed the fact that product sales are directly affected, for better or worse, by what the customer thinks of the firm as well as its product(s).

And what the customer (or employee, stockholder, supplier or other "public") may think can be affected in strange ways. Opinion Research Corp. has found, since this book was published, that many of the 61 terms most commonly used in employee communications have an emotional impact management never intended. For instance, the word "company" produced a more favorable reaction than "corporation." Adjectives such as "big," "selfish," "ruthless," were used by non-supervisory workers in major companies to describe corporation, while "good," "successful" and "necessary" were tied to company.

Lee Bristol is director of Public Relations for the Bristol-Myers Products Division. He has done an able job of assembling the thoughts of 30 specialists and editing them into four main parts: Preparing to Meet the Problem; The Faces of the Image; Tools, Techniques, and

IBM

182nd CONSECUTIVE
QUARTERLY DIVIDEND

The Board of Directors of International Business Machines Corporation has today declared a quarterly cash dividend of $.75 per share, payable September 10, 1960, to stockholders of record at the close of business on August 10, 1960.

C. V. BOULTON,
Treasurer

590 Madison Avenue
New York 22, N. Y.
June 28, 1960

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For an experience you'll cherish a lifetime, go Super Chief on your next trip between Chicago and Los Angeles. Plush surroundings. Famous people. Service in the grand manner. Obtain reservations at any Santa Fe Ticket Office or Travel Agent.

Media; and Where Do We Go From Here?

Mr. Bristol would agree that no one can, with magic, summon a favorable "corporate image." There must be a solid performance in the public interest—then there must follow skillful publicity, done in good taste, if there is to be identification with character and integrity. Otherwise there will be glittering gilt without gold underneath—or maybe just an unfavorable image without even the gilt.

Howard Stephenson's handbook is a comprehensive reference work which succeeds in its three purposes: (1) to show the scope of present-day public relations practice; (2) to describe in detail the principal components and dynamics of public relations programs; and (3) to supply a practical guide to operations.

Mr. Stephenson was formerly with Hill & Knowlton, Inc., largest of the public relations consulting firms. He is now president, Community Relations, Inc.; chairman and professor emeritus of public relations, Boston University. The following paragraph, from his preface, is a further key to his purpose in bringing together the considered opinions of 29 authorities on public relations principles, methods, and its role in industry, commerce and public enterprise.

"This book tries to spell out both the 'how' and the 'wherefore' of public relations which now claims consideration as a profession. Its qualifications are similar to those of industrial relations, advertising, market research, management consultation, and other reputable service functions in the economy. They are not the same as those of the classic learned professions, theology, medicine, and law."

The book deals so ably with the practical day-to-day complexities of public relations problems that it belongs in the libraries of not only public relations men, but every member of management group in both private and public enterprise.

—Reviewed by Albert W. Bates
Public Relations Executive

CLASSICS IN MANAGEMENT: Selections from the historic literature of management. Edited by Harwood F. Merrill. New York: American Management Association. 446 pages. $9.00 for nonmembers and $6.00 for members of AMA.

Probably no single organization (aside from management groups) is more concerned with the type of corporate management than Financial Analysts. And here is a book which should be available to all Analysts who are putting their "stethoscopes" on managements' collective chests.

And if there's any doubt about how to establish a management yardstick, the reading of this book may (should is too strong a word) dispel all doubts. Here management theory and practice is discussed by little-known and well-known authors, names which will not be mentioned here as their background needs individual explanations, and such the book provides.

In the preface, Lawrence A. Appley, president, American Management Association, states: "The roots of the emerging profession of management go deep, just as do those of such other, older professions as theology, law, medicine and education."

Furthermore, Mr. Appley observes: ". . . application of the scientific method and rebirth of the service motive have brought management within the range of Mary Parker Follett's definition of a profession: an institution based on a proved body of knowledge which is used in the service of others."

Aside from the basically-sound principles which are brought to the readers, this book's greatest asset seems to lie in the fact that here is compiled, in a single edition, valuable observations, timeless ideas, which have been made (but were until now unavailable) during the past century or more.

And among the many interesting and cogent observations is the following by Oliver Sheldon, author of *The Philosophy of Management*:

"Management must link up all its practitioners into one body, pursuing a common end, conscious of a common purpose, actuated by a common motive, adhering to a corporate creed, governed by common laws of practice, sharing a common fund of knowledge. Without this, not only have we no guarantee of efficiency, no hope of concerted effort, but also no assurance of stability."

* * *

Principles of Business Organization and Operation. By William R. Spriegel, Ph.D., in collaboration with Ernest Coulter Davies, B.S., C.P.A. Englewood Cliffs, N. J.: Prentice-Hall, Inc. 592 pages. $10.60. Third edition.

From the preface:

"In the previous editions of this book the basic economic concepts have been woven into the discussions of the various functions of business. Our experience has shown that this approach helps the beginning student to relate the business process to his study of economics; also it helps the student of economics to relate economics to the opertions of a business. . . .

"The book strives to preserve the approach to the business process through a description of organizing to achieve the goals of business. In this edition five new chapters have been added and four of the chapters in the previous edition have been eliminated by reducing the breadth of the coverage in various sections. . . . This book is written with an operating business as the central theme, yet, with only small changes, most of the chapters would meet the requirements of other types of organization.

"In this book business is examined as a dynamic process ever striving for balance but never quite reaching it. Though viewing business operations as objectively as possible, the presentation recognizes that the participants in business are men and women each of whom is striving to achieve his personal goal. . . . The main emphasis throughout the book is on individual responsibility and organization that will realize both the individual and group objectives."

ALLEGHENY LUDLUM STEEL CORPORATION

PITTSBURGH, PENNA.

At a meeting of the Board of Directors of Allegheny Ludlum Steel Corporation held today, May 20, 1960, a dividend of fifty cents (50c) per share was declared on the Common Stock of the Corporation, payable June 30, 1960, to shareholders of record at the close of business on June 10, 1960.

S. A. McCASKEY, JR.
Secretary

* * *

(Editor's note: Though strictly not a book, the "Berlitz Instant Money Converter for Travelers" warrants mention. It is issued under the auspices of The Berlitz Schools of Languages and sold for $1. It would seem something of a "must" (particularly for the uninitiated) on a European tour. Pocket size, this booklet tells one how to change U. S. dollars into foreign money; how to change one foreign money for another; how to tip for special services; how to translate price tags when shopping; and how to use foreign measures).

BOSTON EDISON COMPANY

Preferred Dividend

A quarterly dividend of $1.06 per share has been declared payable on the first day of August, 1960 to stockholders of record at the close of business on July 8, 1960 of the Company's Cumulative Preferred Stock, 4.25% Series.

Preferred Dividend

A quarterly dividend of $1.19 per share has been declared payable on the first day of August, 1960 to stockholders of record at the close of business on July 8, 1960 of the Company's Cumulative Preferred Stock, 4.78% Series.

Common Dividend No. 285

A quarterly dividend of 75 cents per share on the Common Stock of the Company has been declared payable on the first day of August 1960 to stockholders of record at the close of business on July 8, 1960.

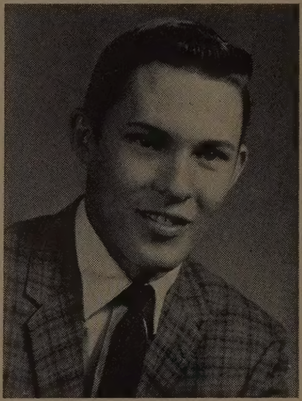
Checks will be mailed from Old Colony Trust Company, Boston.

ALBERT C. McMENIMEN
Treasurer

Boston, June 27, 1960

Second Helen Slade Sanders Scholarship Winner Announced

Ivan Sinclair, of Hereford, Texas, a graduate of Hardin-Simmons University, Abilene, Texas, is the second Helen Slade Sanders Memorial Scholarship winner at Columbia University. He will start the academic year in September, studying financial journalism—in accordance with the scholarship's provisions.



Ivan Sinclair

This scholarship was established in 1959 by *The National Federation of Financial Analysts Societies,* with a $14,000 grant. The first scholarship winner was Sylvia Auerbach who established an enviable record, according to Dean Edward W. Barrett of Columbia's Graduate School of Journalism. Mrs. Auerbach was offered a job on a major New York daily newspaper, but declined for personal reasons.

FEDERAL

FEDERAL PAPER BOARD CO., Inc.

Common & Preferred Dividends:

The Board of Directors of Federal Paper Board Company, Inc. has this day declared the following quarterly dividends:

50¢ per share on Common Stock.
28¾¢ per share on the 4.6% Cumulative Preferred Stock.

Common Stock dividends are payable July 15, 1960 to stockholders of record at the close of business June 29, 1960.

Dividends on the 4.6% Cumulative $25 par value Preferred Stock are payable September 15, 1960 to stockholders of record August 29, 1960.

Robert A. Wallace
Vice President and Secretary

June 14, 1960
Bogota, New Jersey

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Former INS Reporters Aid Industry

A few weeks ago a major manufacturer was trying to decide whether to buy a competing company. He had to make a decision within a week, and he needed to know precisely what he was getting into. Specifically: what did the leading customers think about Company "X," what was the background and "track record" of the executives and how was it regarded by its employees and neighbors in its own home town?

This meant fact-finding in 51 cities and doing it on a confidential basis and in one week's time. It meant much more than routine credit checks. It required probing interviews by veteran fact-finders who knew how to interview and whom to interview.

The major manufacturer was able to get the job done, on schedule and to his complete satisfaction, through the facilities of a comparatively new and unpublicized organization, World Wide Information Services.

World Wide Information Services, now in its third year of fact-finding for industry, has an unusual story behind it. In June, 1958, the International News Service (division of Hearst Corp.) was abruptly merged with the United Press. This left virtually the entire INS team of veteran newsmen "at liberty." One of the INS men, Richard Hubbell, decided to do something about it. The day INS ceased operation he organized a new company and called it W.W.I.S. It continued the "special service" division of INS and W.W.I.S. signed up about 92% of the INS correspondents throughout the world. It did not try to compete with the Associated Press, gathering general news for distribution to newspapers and broadcasters. Instead it was developed into an information network for business and industry.

Today, two years later, its nearly 6,000 reporters cover every market in the U.S.A. and Canada and key markets in 98 other countries and territories throughout the free world. It has become a recognized leader (and the only company of its kind) in the field of objective reporting of facts for major corporations. Its clients include most major advertising agencies and such blue chip companies as American and Capital Airlines, Armstrong Cork, Chrysler, Collins and Aikman, Douglas Aircraft, General Telephone, Goodyear, Hill and Knowlton, Life and Time magazines, Paramount Pictures, RCA, Royal McBee, St. Regis Paper, Sylvania, Union Carbide, U. S. Rubber, Vick Chemical, Westinghouse, and the New York Stock Exchange.

The key to the success of W.W.I.S. is simple: it uses accredited newspaper reporters and editors who live and work in their own home towns. They are employed by local newspapers, and they know their own cities intimately. With the approval of the owners of the newspapers, they serve as correspondents for World Wide, just as they might for the Associated Press. Newsmen are trained to ask questions, get the facts and the "why" of things quickly, correctly, without bias. They are not "keyhole peepers" or private detectives. They are journalists of integrity, members of a distinguished and resourceful profession. Since they already are established in their own cities, they are available to go to work at a moment's notice. They do not travel to distant points, running up travel expenses.

Sometimes their effectiveness surprises even the executives of W.W.I.S. It is not uncommon for them to complete in a few hours assignments that ordinarily would take days or weeks. When the cranberry scare about cancer took place last November, W.W.I.S. completed a survey overnight in 58 markets to find out what had happened to the cranberry business. But the real challenge comes when tougher problems are posed.

Many of World Wide's reporters are business and financial editors of newspapers; others are managing and city editors, as well as general reporters. Headquarters of World Wide Information Services is at 660 First Avenue, New York 16.

Geologists use new portable oil searching tool to probe shallow rock structures that conventional seismographs bypass.

Meeting the Future Need for Oil

The biggest job America's oilmen face is finding economically all the petroleum energy this country will need in the "soaring sixties." Most economists expect *petroleum demand to rise 50 per cent by 1970.*

Sinclair is tackling the heart of the problem by expanding its research into more efficient means of finding and recovering oil and gas. It is seeking scientific break-throughs that will mean more barrels of oil found and recovered per dollar spent.

One experiment being tested is the unique, portable seismograph above. Developed by Sinclair Research Laboratories, Inc., this device quickly probes subsurface areas bypassed by conventional instruments.

Sinclair believes that from research will come better ways of obtaining the low-cost petroleum energy *on which this nation thrives—and depends.*

Send for informative free booklet "Energy for the Soaring Sixties"—yours for the asking.

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The products of the Grace Chemical Group serve human progress in virtually every area of activity: household goods; food packaging; agriculture; medicine; electronics; construction; transportation; clothing; nuclear power; weather forecasting.

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